A Lecture
ON
THE HISTORY OF MEDICINE AS ILLUSTRATED IN ENGLISH LITERATURE.

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GENTLEMEN,—In early times medicine was regarded not as a merely professional study, but as, in some degree at least, a part of that general store of information which should be possessed by every well-trained mind. When the earlier studies which were included in the terms "trivium" and "quadrivium" were completed and the student knew enough of grammar, rhetoric and logic, of arithmetic, music, geometry, and astronomy[1] to be considered *in septem artibus magister*, he proceeded, at least often, to devote his time to the acquisition of medicine, of law, and of theology, the three great subjects concerning all men in their passage through life. You may find a picture of a mind well trained after this method in the "Liber Etymologiarum" of St. Isidore who was Bishop of Seville in the year 604, a book much read in the Middle Ages and to be found in most monastic and collegiate libraries in England. The work is divided into 20 books: the first three treat of the liberal arts in detail; the fourth discusses medicine in thirteen chapters; the fifth book treats of law; the sixth, seventh, and eighth of theology; the ninth of languages and of the laity; the tenth of the meaning of certain general terms; the eleventh and twelfth of man and the animal kingdom; the thirteenth of physiography; the fourteenth of geography; the fifteenth of human society and of building; the sixteenth of mineralogy; the seventeenth of the vegetable kingdom; the eighteenth of war and soldiers and public games; the nineteenth of ships, of painting, of textile arts and their products, of ornaments, rings, girdles, and shoes; the twentieth of tables, of meat and drink, of the furniture of the house, the kitchen, the farm, the garden, and the stable. As this "Liber Etymologiarum" was written about the time of the landing of St. Augustine in England and the consequent commencement of literature and of the knowledge of books among the English, we may take it as representing what the earliest educated men of England knew of things in general. They read Isidore in Latin and if to the information contained in his book we add the Holy Scriptures and their vernacular Anglo-Saxon we have probably a complete notion of the literary contents of their minds. A few examples will give some idea of how varied and curious their knowledge was. The Greek alphabet is explained at length: how Cadmus first brought 17 letters into Greece from Phœnicia, how in the time of the Trojan War three more H, χ, ω, were added, and later ξ, θ, ψ, and how Pythagoras first formed the Y in illustration of human life. The stem is the earliest part of life, the division begins in youth, "cujus dextra pars ardua est sed ad beatam vitam tendens: sinistra facilior sed ad labem interitumque deducens."[2] The chapter on birds shows a desire characteristic of the book to tell everything known to the writer as concisely as possible. "On birds, Book XII. Chapter VII. There is one name of birds, but various kinds. For just as they differ in their kind so they do in their nature. For some are simple as doves, others cunning as the partridge, some will submit themselves to the hand as the hawk, others are very timid as gamarantes, some delight in association with men as the swallow, others prefer a secluded life in deserts like the turtle dove, some feed on seed which they find on the ground like the goose, others eat flesh and aim at plunder like the kite, some always stay in the same habitat like the ostrich, others coming from abroad return at their proper time as storks and swallows, some associate together flying in flocks as starlings and quails, some go alone and are solitary on account of hunting their prey like the eagle and the hawk, some make a harsh noise with their voice like the swallow, some utter sweet songs like the swan and the blackbird, some imitate the words and voices of men like the parrot and the pie, and there are others in kind and in ways of life innumerable."

The book on medicine has a like comprehensive brevity. It begins by defining medicine as the art which preserves or restores health and which concerns itself with diseases and injuries, next discusses the word, and in the third chapter gives a terse account of the origin of our science and art. The originator and discoverer of the art of medicine, it states, is held among the Greeks to be Apollo. His son Æsculapius extended the art in fame and efficiency, but afterwards by a stroke of lightning he slew Æsculapius, and the art, together with the author, declined and lay hid for almost 500 years till the time of Artaxerxes, king of the Persians. Then Hippocrates, son of Asclepius, born in the island of Cos, recalled it to light. The varieties of medical opinion are then discussed and then the four chief sources of disease. Chapter VI. treats of acute diseases, Chapter VII. of chronic diseases, and Chapter VIII. of diseases of the surface of the body. The treatment of disease is discussed in the ninth chapter, the two next treat of medical books and instruments, and the last of the commencement of medicine.

"Some ask," says Isidore, "why the art of medicine is not included among the seven branches of a liberal education. Because each of them contains but a single matter while medicine includes all things. For the physician must know grammar in order that he may understand or explain what he reads, rhetoric so as to use sound arguments, as well as logic so that he may apply his reason to the discovery of the causes of diseases and to their cure. So, also, he must know arithmetic on account of the number of hours in the growth of diseases and in periods of days; so also geometry on account of the characteristics of regions and the situations of places, about which he may learn what everyone ought to observe. Further, music ought not to be unknown to him, for there are, as we read, many things which may be done for sick men by music, as, for example, it is read of David who by the art of melody snatched Saul from an evil spirit. Asclepiades the physician restored a certain lunatic to health by harmony. Lastly, the physician ought to have a knowledge of astronomy by which the reckoning of the stars and changes of seasons are considered. Hence it is that medicine is called a second philosophy. Philosophy and medicine each lays claim for itself to the whole man. For as by the former the soul, so by the latter the body is cured."

This summary of the intellectual requirements of a physician concludes what Isidore has to say about medicine. However different in detail he does not differ in spirit from those who at the present day have the best interests of medical education at heart and we at the beginning of the twentieth century agree with him at the beginning of the seventh century in desiring the widest possible basis of education for those who are to engage in the practice of our far-reaching and all-absorbing art. Medicine in the time of Ethelbert, king of Kent, and throughout the Middle Ages was acquired from books and thus was open to all men who could read. Its connexion with the natural sciences, its vast enlargement, and its own study as a natural science in which the observation of phenomena is the basis of knowledge removed it from the general course of study and made it the sufficient occupation of a lifetime in those men who chose to pursue it. But it is still a wholesome thing now and then to consider it as a subject in which as a branch of learning all educated men may have an interest.

I propose to point out to you some contributions to our medical knowledge which may be obtained from the literature of England, and as I am speaking in York I ought first to consider the northern province. The North of England had three great literary glories. It was in this region that writing was first practised and the Gospels of Lindisfarne, the earliest book which we know to have been written in England, remains to this day one of the most beautiful. The second glory was Cædmon, the first English

[1] De septem liberalibus disciplinis. Disciplinæ liberalium artium septem sunt. Prima grammatica: id est loquendi peritia. Secunda rhetorica quæ propter nitorem et copiam eloquentiæ suæ maxime in civilibus questionibus necessaria existimatur. Tertia dialectica cognomento logica: quæ disputationibus subtilissimis vera secernit a falsis. Quarta arithmetica quæ continet numerorum causas et divisiones. Quinta musica: quæ in carminibus cantibusque consistit. Sexta geometria: quæ mensuras terræ dimensionesque complectit. Septima astronomia: quæ continet legem astrorum.—Liber primus etymologiarum sancti Isidori Hispalensis episcopi. (Venice, 1483.)

[2] Liber Etymologiarum, Book I., cap. 3.

poet, who began and ended his career at Whitby. In the account of his death by an author who was his contemporary [3] is the earliest mention of hospital accommodation in England. "For when the time of his departure drew near he laboured for the space of 14 days under a bodily infirmity which seemed to prepare the way, yet so moderate that he could talk and walk the whole time. Yeardby was the house to which those that were sick and those who seemed likely to die were carried. He desired the person that attended him, in the evening as the night came on in which he was to depart this life, to make ready a place there for him to take his rest." It is not possible from the account to gather what Caedmon's illness was but the conclusion suggests some disease associated with prolonged physical debility and the relation of his last words bears the mark of truth in the way in which it shows his consciousness of approaching death without knowledge of its immediate nearness. "Then strengthening himself with the heavenly viaticum he made ready for the entrance of another life and asked how near might be the hour when the brothers ought to be wakened to say the nocturnal lauds. They answered, 'It is not long.' Then he, 'Well therefore let us wait that hour,' and signing himself with the sign of the holy cross he laid his head upon the pillow and lightly sleeping so with silence ended life." The third literary glory of the north is the "Historia Ecclesiastica Gentis Anglorum" of Bede, the first great historical book of England. It contains many passages of medical interest. I have already quoted his account of Caedmon. That of St. Ethelreda, abbess of Ely, has a more precise scientific value and also contains the earliest mention by name of a physician in England, "medicus Cynifrid." He attended her in her last illness and had opened an abscess in her neck which was much swollen. It was remembered that she was pleased at the nature of her disease and used to say: "I know that I deserve to bear the weight of my disease on my neck, for I remember that in my girlhood I bore there the very foolish weight of necklaces and I believe that therefore the heavenly mercy wills that I should bear the pain in my neck that thus I may be absolved from the guilt of my silly levity, since now, instead of gold and pearls, the redness and inflammation of a swelling stand out upon my neck." [4] St. Etheldreda died at something over 40 years of age, about the same time as Caedmon, the year 680, and it is clear from this description of a prolonged swelling in the neck ending in suppuration that she was the subject of tuberculosis, so that in this passage of Bede we have evidence that the organism which we know as the tubercle bacillus existed and multiplied in the human body in England in the seventh century. This microscopic growth probably existed long before in our island and has continued to our own time. Kings, who could be no better informed than their most learned subjects and were ignorant of the origin of the prominent symptoms, thought that their touch could cure the swellings which the bacillus produced. One of the greatest characters in our literature has preserved in a note a recollection of this practice: "I was taken to London to be touched for the evil by Queen Anne. I always retained some memory of this journey, though I was then but 30 months old. I remember a boy crying at the palace when I went to be touched. My mother was at Nicholson's, the famous bookseller in Little Britain. I remember a little dark room behind the kitchen where the jack weight fell through a hole in the floor into which I once slipped my leg." [5] It is recorded [6] that King Charles II. touched 92,107 patients for such symptoms, and William Clowes, surgeon to Queen Elizabeth and to St. Bartholomew's Hospital, shows his own view in an account of a patient from Yorkshire whom he saw. In his treatise on the struma he says: "And that I should credit him the more he showed me the angell of golde which her Majesty did put about his neck, truly a cure (as I have said) requireth divine honour and reverence: and heere I doe confidently affirm and steadfastly beleeve that (for the certain cure of this most miserable malady) when all artes and sciences doe faile, her Highnesse is the onely Day starre, peerelesse and without comparison, for whose long life let us all continually pray."

The discovery of the tubercle bacillus by Koch has in our time given the true explanation of the varied phenomena of tuberculosis with which we are first made acquainted, as regards England, by our earliest Saxon historian writing nearly 1200 years ago. Bede's history reveals to us the presence of another micro-organism in England—that of the plague. It seems probable that the epidemic of plague in England in 664, of which Bede tells, reached this country from Ireland and not from the continent. The plague raged in Ireland from August, 663, into the year 664, in which there was an eclipse of the sun on May Day. The epidemic came to England in the early summer of 664, perhaps brought by students returning from Ireland, and seems a curious indication of the fact that there was a greater degree of intercourse between the countries of the Roman Empire and Ireland, which had never formed part of that empire, than between the European kingdoms and Kent which had been utterly cut off from the Roman Empire by the conquests of the Jutes and the Saxons. In Ireland the plague had appeared in the sixth century within a few years of the great epidemic in the time of the Emperor Justinian in Constantinople. About the middle of that century the chronicles record that Tara, which till that time was the residence of the chief king, was abandoned. Diarmait MacCearbhaill, the king, left it and never returned and it was never inhabited again. Its great earthworks remain and attest its former importance, while the rich pastures of the plain of Meath by which it is surrounded show its fitness to be the home of a king whose chief wealth was herds of cattle. In later times its desertion was attributed to the curse of a saint, Ruadhan of Lothra, but an investigation of the facts of his contention with King Diarmait shows that the dispute was amicably settled and that the saint's denunciations, which were after all withdrawn, do not bear the interpretation which was put upon them centuries after they were uttered. The story of the curse is, in fact, only an answer to the question, Why was Tara abandoned? which was given long after the facts had been forgotten. There is no destroyer of tradition greater than an epidemic, which kills off a large part of the generation which might transmit the story. The date of the desertion of Teambair na righ, Tara of the kings, as the Irish called it, corresponds to that of the introduction into the island of the slow-travelling epidemic of plague which came to it from the city of Justinian and a dwelling-place abandoned because nearly everyone had died there came to be regarded with such dread that even its fine position, far extending view, and rich pastures could not induce future kings to return to it.

It was a little more than 100 years later, in 663, that the ravages of the plague had again been terrific in Ireland. The two kings, another Diarmait and Blathmac, and many of the clergy and laity had died. The deaths in the next year in England were not less startling, for the two chief people in the island, Erconbert, the King of Kent, and Deusdedit, the Archbishop of Canterbury, died on the same day, July 14th, 664.

Thus can we trace the existence in England of a second bacillus, that of the plague, from the history of the Venerable Bede. Again and again in succeeding centuries this bacillus was introduced from abroad and perhaps attained its greatest activity in the reign of King Edward III., destroying thousands in 1348–49. A few years ago, when some tall warehouses with deep foundations were being built in Charterhouse-square, in London, I went to see whether any traces of the dead of this great plague were to be seen and saw many of the skeletons of the victims of the epidemic. But severe as this epidemic was, the general public would in all probability know less of the plague than they do of the Constitutions of Clarendon or the *Quo warranto* but for a great piece of literature in which the less severe though yet terrible visitation of 1665 is described. Defoe's "History of the Plague" is a work of imagination which differs from the travels of Mr. Lemuel Gulliver in having some historical foundation and a different object but resembles the adventures of Robinson Crusoe in owing more to the descriptive powers of the author than to his historical research. Who does not remember Defoe's account of the doors marked with a red cross and the words "Lord have mercy on us," and Solomon Eagle going about "denouncing judgment upon the city in a frightful manner, sometimes quite naked, and with a pan of burning charcoal on his head," and the young woman found dead and deserted in the house alone and that terrible account of the shriek. "Passing through Tokenhouse yard in Lothbury of a sudden a casement violently opened just over my head and a woman gave three frightful screeches and then cried, 'Oh! death, death, death!' in a most inimitable tone and which struck

[3] Bede: Historia Ecclesiastica, Book iv., c. 22 (ed. Plummer).
[4] Ibid., Book IV., c. 17.
[5] Boswell: Life of Johnson, Croker's edition, 1831, vol. i., p. 16.
[6] Douglas: The Criterion; edition 1820, p. 482.

me with horror and chillness in my very blood. There was nobody to be seen in the whole street, neither did any other window open for people had no curiosity now in any case, nor could anybody help one another, so I went on to pass into Bell-alley." And the stopping of the dead carts at doors and the sleeping piper carried away with the dead and waking up on the verge of the plague-pit and the desperation of the infected and the pain of the swellings, the terrible indifference of most to the sufferings of others and the ghastly stillness of many of the streets. No picture could be more distinct.

It is to this unhistorical History of the Plague, which so well illustrates the remarks of Fielding that the works of imagination may have more absolute truth in them than histories, that we owe the fact that almost every child in England has heard of the great plague of London. The quarto of Diemerbröek, the Loimologia of Dr. Nathaniel Hodges, and the Loimographia of the Apothecary Boghurst are perused by physicians, but such is the power of good literature that what England in general knows of the plague is altogether due to Defoe. A very few years ago, walking down Cheapside, not far from the site of the house of Sir Richard Blackmore the physician—he was a respectable physician if an indifferent poet, you will remember the lines of Pope:—

> "The hero William and the Martyr Charles,
> One Knighted Blackmore, and one pensioned Quarles,"—

it was near his door, I say, that I met the medical officer of the Port of London, a gentleman who has great opportunities of acquiring interesting medical facts and whom I therefore asked if he had seen anything worth mentioning lately? "Yes," he said, "the plague has reappeared in London, I have seen two cases on a ship in the river." Since that day I suppose most people concerned in teaching medicine in London have become familiar with the appearance of the plague bacillus under the microscope and to their childish reading of Defoe have added the perusal of many sanitary reports of the terrible epidemic of Poona, of other places in India, and of Hong-Kong. Students have sent home to us specimens of the solid lung of the pneumonia produced by the plague bacillus and of other visceral changes, the dim indications of which are to be found in Hodges and Diemerbröek, and I, whose former pathological touch with this disease was no nearer than the having seen the bones of 1348–49, have known a nurse who died from the plague.

The life of St. Anselm, Archbishop of Canterbury, by Eadmer, a monk of Canterbury who was in the personal service of Anselm and went with him to Italy, contains an illustration, perhaps the earliest in our history, of an important part of medicine, the nursing of the sick. Eadmer[7] speaking of the saint's life at Bec says: "Oh, how many given over in sickness has he brought back to health by his loving care! You felt it, Herewald, helpless old man, when weighed down not only by years but by a severe illness so that you had no control over any part of your physical frame but your tongue and were fed by his hand and were refreshed by wine squeezed from the grapes by one hand into the other, drinking it from his own hand, so that you were restored to health; for, as you used to say, you could relish no other drink nor from any other hand. Anselm himself made a habit of frequenting the house of the sick, diligently investigating the illnesses of the brethren and ministering to each without delay or trouble what he needed." As I am concerned in everything that adds to the glory of St. Bartholomew's Hospital I like to remember that this kind nurse—perhaps I ought rather to say this great saint and theologian—who, to his intellectual ability and metaphysical powers added those practical virtues and that profound consideration for others which are essential in a nurse—consecrated Richard of Belêsme, the Bishop of London, to whose influence with the king St. Bartholomew's Hospital owes its site. The improvement in nursing, though it has made rapid strides in our own day, has been gradual. The Beguines, whose picturesque residences are to be seen at Bruges and Ghent to this day, must have been good nurses if we may trust the account of them which Corporal Trim gives:[8] "By the persuasion of the young woman, continued the Corporal, the cart with the wounded men set off without me; she had assured them I should expire immediately if I was put into the cart. So when I came to myself I found myself in a still quiet cottage, with no one but the young woman, and the peasant and his wife. I was laid across the bed in the corner of the room, with my wounded leg upon a chair, and the young woman beside me holding the corner of her handkerchief dipped in vinegar to my nose in one hand and rubbing my temples with the other. I took her at first for the daughter of the peasant (for it was no inn); so had offered her a little purse with eighteen florins, which my poor brother Tom (here Trim wiped his eyes) had sent me as a token, by a recruit just before he set out for Lisbon. The young woman called the old man and his wife into the room to show them the money, in order to gain me credit for a bed and what little necessaries I should want, till I should be in a condition to be got to the hospital. 'Come, then,' said she, tying up the little purse, 'I'll be your banker; but as that office alone will not keep me employed, I'll be your nurse too.' I thought by her manner of speaking this, as well as by her dress, which I then began to consider more attentively, that the young woman could not be the daughter of the peasant. She was in black down to her toes, with her hair concealed under a cambric border, laid close to her forehead: she was one of those kind of nuns, an' please your honour, of which your honour knows there are a good many in Flanders which they let go loose. 'By thy description, Trim,' said my Uncle Toby, 'I dare say she was a young Beguine, of which there are none to be found anywhere but in the Spanish Netherlands, except at Amsterdam; they differ from nuns in this, that they can quit their cloister if they choose to marry; they visit and take care of the sick by profession.' 'The young Beguine,' continued the Corporal, 'had scarce given herself time to tell me "she would be my nurse," when she hastily turned about to begin the office of one and prepare something for me; and in a short time, though I thought it a long one, she came back with flannels, &c., &c., and having fomented my knee soundly for a couple of hours, &c., and made me a thin basin of gruel for my supper, she wished me rest, and promised to be with me early in the morning.'" This wound was received at the battle of Landen in 1693 and Sterne, who has left Corporal Trim to be known and admired by all future generations, was certainly intimate with the old soldier who is portrayed in him, and this has always seemed to me to bring Trim near to our own times, for when I was a boy I was often the guest of an old squire in this county whose father, as he told me, had danced with the Reverend Laurence Sterne's daughter at the York ball.

Societies for the nursing and transport of the sick and similar good works, of which the Misericordia of Florence still flourishes and is one of the most ancient, were in existence in the thirteenth century and perhaps earlier. The house of the guild of the Misericordia is now close to the cathedral and on the other side of the way to Giotto's famous tower. Its original house was a few yards nearer the baptistery. The founder was Piero di Luca Borsi, a porter. He had a profound veneration for the name of God and as he sat waiting to be engaged was shocked by the way in which his fellow porters every moment took it in vain. He persuaded them to agree to put a small fine into a box for every oath and the Misericordia arose from the decision of Piero di Luca Borsi and the porters as to how to dispose of the fund which was thus accumulated. The obvious usefulness of the society led to its increase in means and in numbers, and citizens of Florence of all ranks joined it and took their turn of duty in the four quarters of the town. Its organisation is perfect and its work active to this day, and that the kind of help it can give is needed is sufficient claim to its services. The members wear a long gown and hood over their clothes, so that as they conduct an ambulance through the street their personality is not displayed and a Florentine of the most illustrious descent or a well-known public man cannot be distinguished from a porter or labourer who may chance to carry the litter with him or bear the body of a poor man to the mortuary with proper respect, except perhaps by his boots. Every member of the Misericordia takes his turn of duty without fail and if summoned leaves his own table or work or any social engagement when called.

The earliest English hospitals perhaps owe their origin to similar but earlier institutions in Italy. St. Bartholomew's Hospital was founded by Rahere in 1123 after he had made a pilgrimage to Rome and the seal of the hospital which was in use in his time bears two marks of his Italian pilgrimage, for on one side is a figure in the exact dress worn by the Misericordia in Italy to this day, while the

[7] Eadmer: De Vita Anselmi, cxii.
[8] Tristram Shandy.

reverse is a classical gem which I have the authority of the late Professor Middleton for saying was probably engraved in the third century of our era and which may have been brought from Rome by Rahere himself.

The general destruction of religious societies was no doubt injurious to the nursing of the sick, which became an occupation little esteemed, as may be gathered from numerous passages in English medical writers. The general improvement in the education and training of nurses dates in this country from the public knowledge of the terrible disadvantages of the want of good nurses in the hospitals of the Crimean army. England is at the present day probably ahead of most European countries in the training and general education of nurses, though a great deal yet remains to be done. The little sister in Thackeray's "Adventures of Philip," a book which, if inferior to his greatest works, is yet of interest from the light which it throws on some parts of his own life, is a picture of the best kind of nurse in existence before the time of Florence Nightingale. Having mentioned Thackeray, one is naturally led to think of the great novelist whom he at first made his model. It is curious that as he had studied Fielding so carefully he should have come to admire "Amelia" the most of the three great works of Fielding, and, indeed, that he preferred that novel to "Tom Jones" might be disbelieved did it not rest upon indisputable evidence. In "Amelia" one of the minor characters, Mr. Barnet, is mentioned as having died from polypus of the heart: "the surgeon who opened him after his death advised me that he died of what they call a polypus in his heart."* As this expression is not to be found in our official nomenclature of diseases it is worth consideration how a term once so common in daily conversation and in medical writings should have disappeared. The history of polypus of the heart has, of course, a direct relation to Harvey's great discovery of the circulation of the blood. When in 1628 he published his famous "Exercitatio Anatomica de Motu Cordis et Sanguinis" his demonstration was so clear that it was almost universally accepted by the medical world. Dr. Primerose and one or two others did indeed write against it, but they belonged to the group of minds who believe that the world is flat. But it takes a long time for the complete application by men of a great scientific truth. Malpighi about half a century later showed the capillaries which the apparatus of Harvey's time had not enabled him to see and Cowper actually witnessed the movements of the periphery of the circulation in a mammal. The great discovery was completed and confirmed in every particular, yet so imperfect was its application that though James Douglas in 1715 heard a loud murmur synchronous with the beats of the heart as he stood by the bedside of a patient in St. Bartholomew's Hospital and after death saw deformed aortic valves he did not attain to the obvious explanation that the aortic obstruction was the cause of the murmur. It is therefore less astonishing when we find from the numerous theses "De Polypo Cordis" that the firm branching clots often found in the right side of the heart after death were believed to be growths which had formed during life and led to its termination. Dr. Matthew Baillie in 1793, in his "Morbid Anatomy of Diseases," was the first to point out the obvious fact that such a growth would have prevented the circulation, so long did it take for this greatest of discoveries to be thoroughly understood. Indeed, it is hardly too much to say that it was 200 years after the publication of Harvey's book before the whole question was concluded by the general acceptance of our present views on valvular disease; and, indeed, if the understanding of embolus and of hæmorrhagic infarction are to be included several years must be added to the two centuries. "Tom Jones,"—the work which Fielding himself thought the greatest product of his genius and as to which every careful reader shares the admiration of Gibbon who, speaking of the relationship supposed to exist between the Fieldings and the house of Hapsburg, says: "The successors of Charles the Fifth may disdain their brethren of England, but the romance of Tom Jones, that exquisite picture of human manners, will survive the palace of the Escurial and the Imperial Eagle of the House of Austria,"—contains a passage which shows that the discussion of the use of electricity in medicine had begun. Black George the gamekeeper had quieted the scolding of his wife "with a small switch, a remedy of wonderful force as he had often essayed and which the word villain served as a hint for his applying. The whole family were soon reduced to a state of perfect quiet. For the virtue of this medicine, like that of electricity, is often communicated through one person to many others who are not touched by the instrument. To say the truth, as they both operate by friction it may be doubted whether there is not something analogous between them of which Mr. Freke would do well to inquire before he publishes the next edition of his book." Mr. John Freke was surgeon to St. Bartholomew's Hospital, knew Hogarth, and through him was probably acquainted with Fielding. One of the introductory chapters which add so much to the charm of the novel and the succeeding chapter show with how much attention Fielding had read Sydenham's "Treatise on the Gout and Dropsy." The introduction is an invocation of the love of fame and Fielding says: "Comfort me by a solemn assurance that when the little parlour in which I sit at this instant shall be reduced to a worse furnished box I shall be read with honour by those who never knew nor saw me and whom I shall neither know nor see." In the second chapter he returns to the thought. "To have the several elements which compose our names, as Sydenham expresses it, repeated 1000 years hence is a gift beyond the power of title and wealth and is scarce to be purchased unless by the sword and the pen."

The words of Sydenham, somewhat involved in their English version, express his devotion to scientific truth: "And I do not so much inquire whether others are of my opinion as whether what I deliver be agreeable to truth. For what advantage will it be to me after I am dead that eight alphabetical elements, reduced into that order that will compose my name, shall be pronounced by those who can no more frame an idea of me in their minds than I can now conceive what those are to be who will not know such as were dead in the foregoing age." It was the illustration of the nature of posthumous fame on which Fielding reflected, still finding in the hope of that fame an encouragement among the difficulties of life; but the passage of Sydenham goes further and expresses that veneration of truth which the fine lines of Churchill set forth in another phrase—

> "'Tis not the babbling of an idle world,
> Where praise and censure are at random hurled,
> That can the meanest of my thoughts control
> Or change the settled purpose of my soul."

The cerebral effects of raised temperature, which are so much more well marked in children than in adults, are illustrated in the life of an Archbishop of Canterbury whose moral and intellectual qualities were of a high order. St. Dunstan, whose beautiful drawing of himself kneeling at the feet of our Saviour, which is preserved in the Glastonbury MSS. at Oxford and is perhaps the first certainly known picture by a British artist, was brought up as a boy at Glastonbury Abbey. The great church was undergoing repair at the time when he chanced to have a febrile illness, perhaps a pneumonic consolidation of part of one lung. He climbed up on to the roof of the church and was there seen by a person who wisely did not suddenly disturb him. In time the boy climbed safely down unconscious of his dangerous journey. A boy whom I chanced to know, who was at a preparatory school a few years ago and was in a febrile condition connected with a sore throat, climbed out of an upstairs window, down a water pipe, crossed a piece of ground, pulled up some small trees, and returned without any definite object and unconscious of where he had been. A young adult labourer with pneumonia, in the course of his delirium rose from bed, walked the length of the room in which he was, got out of a small window at the end, and dropped some 40 feet to the ground. By an uncommon good fortune he escaped both fracture and internal injury and in course of time recovered. He had no suicidal intention or recollection of having left his bed. Thus an incident which might seem an exaggeration or an improbability to a general reader, when considered in the light of medical experience is seen to be a truthful statement of fact.

The lives of saints contain many passages interesting to a student in medicine the accuracy of which may often justly be considered as evidence of the general veracity of the narrative. A curious example of the uncertainty which prevailed as to the function of the blood occurs in Dryden's Epistle to Dr. Charlton, published in 1662, the finest tribute which science has obtained in English from the poets:—

> "The circling streams, once thought but pools of blood,
> Whether life's fuel, or the body's food,
> From dark oblivion Harvey's name shall save."

* Amelia, Book vii., c. 9.

The poems of Donne, with his taste for far-fetched allusions, contain several examples drawn from the popular scientific notions of his time, and in a curious poem called "The Will" he mentions his medical books:—

> "To him for whom the passing bell next tolls
> I give my physic books."

His poems contain also some allusions curious from their relation to things with which men were then familiar, such as the line—

> "Racked corpses make but ill anatomies,"

which brings to our mind the political criminal who after torture and death in prison or on the gallows was handed over for dissection.

The greatest of all our authors, of course, contains many passages which show that he had thought on medicine as on everything else and these repay consideration, but they would require an essay to themselves. My object in this address has been to show how we who are acquainted with medicine may use literature as one of the many means of improving ourselves in our own subject. I have therefore said nothing of the errors of authors who have approached medical subjects nor alluded to those passages of literature which merely relate to the histories or characters of physicians. These afford abundant material worth consideration and some of them, like the account of the doctor of physic in the "Canterbury Tales," which describes his pathological views as well as his turn of mind, his dress and his library, almost belong to the actual illustration of medical study and observations in our literature.

As to the relations between physicians and the world of letters, how much there is that contributes to the permanent honour of our profession in Swift, in Johnson, and in many others. I began by showing how a knowledge of medicine was long ago thought a part of a complete education and in the altered conditions of our times I like to feel that our laborious studies, besides their usefulness, as we apply their results to mankind, also make us part of the learned world. We cannot but value the honours which have been conferred by literature upon medicine, such as the verses of Cowper to one of my predecessors at St. Bartholomew's Hospital, Dr. Austen:—

> "Austen! accept a grateful verse from me,
> The poet's treasure, no inglorious fee,
> Loved by the muses, thy ingenious mind
> Pleasing requital in my verse may find;
> Verse oft has dashed the scythe of Time aside,
> Immortalising names which else had died.
> And, oh! could I command the glittering wealth
> With which sick kings are glad to purchase health;
> Yet if extensive fame and sure to live
> Were in the power of verse like mine to give
> I would not recompense his arts with less
> Who, giving Mary health, heals my distress.
> Friend of my friend! I love thee, though unknown,
> And boldly call thee, being his, my own."

A Lecture
ON
OCCUPATION AS A CAUSE OF LUNG DISEASE.

Delivered at the Mount Vernon Hospital for Consumption, London, on Oct. 15th, 1903,

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GENTLEMEN,—When honoured with an invitation from the subcommittee of the Mount Vernon Hospital to deliver the opening lecture of the post-graduate course of study for this session, I felt that while I was not in a position to convey any fresh information I might yet accomplish some useful purpose if I refreshed your memory by presenting old facts in the light of recent pathology. I have chosen as the subject of this lecture "Occupation as a Cause of Lung Disease" and while in the main my remarks will apply to phthisis they will of necessity include affections of the respiratory tract generally. It is gratifying to know that the mortality from tuberculous phthisis in this country has for many years past been declining. For each million of persons living in England and Wales the number of deaths from phthisis during 1861–70 was 2475, during 1871–80 2116, and during 1881–90 1724. As the diminution in the death-rate began anterior to the discovery of the tubercle bacillus by Koch there can therefore be no causal relationship, as has sometimes been assumed, between the two. More exact knowledge of the infectiousness of tuberculous phthisis has certainly strengthened the hands of the physician so far as treatment is concerned. If this is the case in ordinary phthisis then to the improved conditions under which work is carried on in the coal mines of this country must be attributed the great diminution in the death-rate of miners from pulmonary disease. Since, however, statistics still show that the mortality from phthisis in people who follow certain trades is much greater than in others there can be no doubt of the causal relationship between occupation and pulmonary disease and of dust being the *causa causans*. So much is this the case that to a group of lung diseases characterised by excessive development of fibrous tissue throughout the lungs the term "pneumoconiosis," introduced by Zenker, is still applied and according to the character of the dust so are the pulmonary lesions described as anthracosis, silicosis, siderosis, &c. These words were framed before Koch's discovery of the microbe of tubercle. Most of the opinions held by medical men to-day in regard to pneumoconiosis are pretty much those that prevailed previously to the discovery of the tubercle bacillus. It is worth our while therefore to review the subject of pneumoconiosis in the light of the knowledge we now possess of the specific micro-organism of tubercle.

In 1860 Sir John Simon, in drawing attention to statistics compiled by Dr. Greenhow, remarked that "certain diseases, which among them make up fully one-half of our annual mortality, are fatal in widely different degrees in different districts of England."[1] The death-rates of the adult population by pulmonary diseases had ranged, as regards grown-up men, from 221 and 306 to 1298 and 1440 per 100,000 of the population. Death-rates from phthisis alone among grown-up women had ranged from 229 to 558, and "to account for so unequal a distribution of particular kinds of death there must prevail almost corresponding inequalities in the distribution of the causes of disease." The problem discussed at this particular period was why in some districts in England grown-up men and women should die from certain diseases of the lung three, four, or even six times as abundantly as in other districts. As regards tuberculous phthisis and bronchitis it was felt that the large mortality from these two diseases in particular districts was influenced by the industrial relations of the people, so that when comparisons were made between agricultural and manufacturing populations it was found that "in proportion as the male and female populations are severally attracted to in-door branches of industry, other things being equal, their respective death-rates by lung disease increased."[2] Dr. Baly of Millbank Penitentiary experience had just published his essay on "Diseases of Prisons" and in it had drawn attention to the extremely high death-rate of convicts from lung disease, which he attributed to the operation both of physical and moral causes. On making a comparison between the life of a worker in a textile factory or other in-door occupation with that of a prisoner it was seen that in textile factories there are the same monotony, seclusion from air and sunshine, also the breathing of impure air for the greater part of the day, all of which depress the vital resistance of the individual and predispose him to catching cold.

In 1860 it was demonstrated that among the suffering districts there were places which were the chief seats of metal mining, of metal manufacture, and of pottery manufacture, and that in these places the predominant lung disease was at least primarily bronchitis, in regard to which two kinds of occupation had long been recognised as hurtful—viz.: (1) those that give rise to mechanical or chemical irritation of the air passages by dust, grit, or fluff being diffused through the atmosphere; and (2) those in which the operatives are exposed to abrupt changes of temperature. The report showed with reference to phthisis and bronchitis and the influence of occupation "that the high death-rate from lung diseases belonged specially according to the occupation to the men or to the women of the district; that it was sometimes nearly twice as high for the employed sex as for the unemployed; and that

[1] Public Health Reports, John Simon, vol. ii., p. 19.
[2] Ibid., p. 20.

it only extended to both sexes when both were engaged in the occupation."[3] During the years 1848–54 in Sheffield, where male labour is principally employed, Simon states that the death-rate from pulmonary diseases, including phthisis, per 100,000 of all ages was for males 839 and for females 670; in Preston, where men and women both work in the factories, the numbers were males 776 and females 768, a near approach to each other, whereas in Redruth, Cornwall, where tin mining is carried on, the numbers were 670 males and 450 females, and in Berkhampstead, where the female population is largely engaged in straw-plaiting, the numbers were 401 males and 566 females. These figures demonstrate the similarity of death-rate when the two sexes are equally employed and as an indication of the greater mortality where one sex is specially employed it may be stated that in some occupations the female victims of lung disease are more than twice as numerous as the male.

Although it was in 1858 that there was instituted a systematic investigation into the circumstances in which certain districts of England exhibit a high death-rate from particular kinds of disease it was not until the publication of the report of the medical officer to the Privy Council in 1861 that the subject of excessive mortality from lung disease in certain districts was properly discussed and an effort made to trace the effect to its cause. That effort was, on the whole, successful. It showed the evil effects of want of ventilation in indoor work places and the monotony of certain kinds of labour, as well as the harmful consequences caused by the position of the body when at work and of working in a dusty, excessively moist, and superheated atmosphere. The situation of the factory and dampness of the soil were also included in the above. To these might be added the effect of long hours. One very important point which cannot be excluded in the consideration of the subject of occupation diseases of the lung is the extreme division of labour which exists at the present time. Once a man has become a needle grinder he nearly always remains such; once a scourer in a pottery always a scourer; once a stonemason or a miner it is seldom that he changes his occupation, so that when he becomes ill and has recovered he is almost obliged to return to his previous occupation.

Admitting that the tendency of industrial life is to increase the death-rate of a district, the effect is modified to some extent by the influx of young and strong adults attracted into these industrial centres by the higher wages that are paid. The mortality from phthisis has been reduced in most occupations, a diminution which is in keeping to some extent with the reduction of the death-rate from phthisis in the population generally. According to Newsholme's tables the death-rate from phthisis per 1,000,000 living of each sex has fallen from 2579 males and 2774 females in 1851–60 to 1633 males and 1303 females during 1891–95, and also while up to 1866 more females than males died from phthisis since then the death-rate from this cause has been higher in males, so that taking the mortality returns of a later period we find that while between 1881 and 1900 the deaths from pulmonary phthisis diminished 18·2 per cent. in men, the reduction in the case of females was 36 per cent. In males the greatest diminution has taken place under 20 years of age and in females under 25 years of age. Since, therefore, it is in youths and in females under the age of 25 years that the greatest reduction has occurred, this circumstance would rather suggest that the domestic causes of tuberculosis have improved more than the industrial causes to which males are more particularly exposed. Lewis and Balfour[4] maintain that although the mortality from phthisis has fallen in most occupations it has risen 2 per cent. in file makers and 9 per cent. in cutlers. In colliers, wool-workers, and cotton spinners the reduction has been from 12 to 29 per cent. While there has been a diminution in the death-rate from phthisis in most occupations there has been a rise in the rate of mortality from respiratory diseases generally. Taking the whole of the country the greater part of phthisis mortality occurs between the ages of 35 and 45 years, whereas formerly the higher death-rate occurred between 25 and 35 years or even at a younger age.

Since there are many dusty trades that give rise to pneumoconiosis it is impossible to give illustrative examples of all. I will therefore give a *résumé* of such clinical and pathological details as will be applicable generally because the pulmonary lesion is, practically speaking, the same in all—viz., an overgrowth of fibro-connective tissue accompanied by the deposition of a large amount of pigment in the lung which varies in colour and in character with the peculiar nature of the dust which has been inhaled. There is, I think, no doubt that the pulmonary lesion is largely the result of local irritation caused by dust. The amount of coal miners' phthisis in Britain to day is only a very small fraction of what it used to be. That this favourable condition of things is largely a consequence of the improvement in the ventilation of coal-pits required by Act of Parliament is shown by the high mortality from phthisis that still exists in lead miners. Lead mines do not come so completely within the scope of the Mines Acts as do coal-pits and as a consequence no steps are taken in some places to remove the foul air from the workings. While dampness of soil may play a part in the development of phthisis there is not the least doubt that the breathing of an impure air for several hours per day reduces the resistance of an individual to tubercle. As regards lead miners and their predisposition to lung disease we cannot overlook the effect of the men working in wet clothes and, when fatigued, of the long walk across a bleak moorland country after a hard day's work, also the influence of neglected catarrhs. Exposure to cold when fatigued and the wearing of damp clothes, inattention to mild attacks of bronchial catarrh, coupled with alcoholic intemperance, pave the way alike for the harmful operation of dust upon the lungs and the incidence of tubercle. The influences of exposure to cold upon men when fatigued and of dust in causing lung disease were well shown during the construction of the Mont Cenis and St. Gothard railway tunnels. Many of the miners died from acute affections of the lung and from pulmonary phthisis. In consequence of the employment of the Brandt rock-drill at the Simplon tunnel at present in course of construction, a drill which is worked by hydraulic pressure and which by sprinkling water allays dust, also the opportunities afforded by the contractors to the miners on leaving work of changing their wet clothes and of having warm baths, there has been, practically speaking, no phthisis among the miners employed at the Simplon tunnel. There is not the least doubt that by this thoughtful provision on the part of Messrs. Brandt and Company and their considerate regard for the health of the miners much illness has been averted and many lives have been saved. Bronchitis and pneumonia do occur at the Simplon tunnel but only to a limited extent. In all occupations, whether indoor or outdoor, that are attended by a high death-rate from phthisis and respiratory diseases generally there are often other causes in operation than the occupation itself. While a dusty trade may cause pneumoconiosis the men may die not from pneumoconiosis *per se* but from pulmonary tuberculosis, and as this is an infectious disease we must therefore look beyond the occupation for the cause which will probably be found in the housing of the working men or in their habits. Dr. J. Niven of Manchester rendered signal service when he showed that much of the pulmonary phthisis from which outdoor labourers suffered is less in consequence of their occupation than the result of tuberculous infection probably caught in the public-house. We must therefore distinguish as far as we can between pulmonary disease due to occupation—viz., pneumoconiosis—and lung disease the result of neglected catarrh and subsequent secondary infection.

FRENCH MILLSTONE BUILDERS.

If there is one trade more than another in which the death-rate from phthisis is high it is that of French millstone building. The subject is fully dealt with in the final report of the Dangerous Trades Committee of the Home Office.[5] The stone which is used is known as buhrstone, is of a hard, flint-like character, and is generally spoken of as one of the hardest in nature. Buhrstone as imported into this country from Fierté-sous-Jouarre in France is in the form of irregular masses and has to be shaped into wedges. This is done mostly in the open air by men using a hammer and chisel. Millstone masons are notoriously a short-lived body of men. In this country most of the millstones are made on the banks of the Thames. The men earn large wages, often as much as 60*s.* a week, but they are intemperate and careless. In the act of chiselling a considerable quantity of dust is given off, partly from the stone and partly from the chisel, some of which reaches the lungs. Before ten years are over a large proportion of the men have

[3] Ibid., p. 23.

[4] Lewis and Balfour: Public Health and Preventive Medicine, p. 446.

[5] Published by Messrs. Eyre and Spottiswoode, 1899.

died from pulmonary consumption attended by pretty profuse hæmoptysis. Blood-spitting is a common symptom in this malady. Men who take to this occupation seldom live beyond from 35 to 40 years of age.

This summer, accompanied by one of the factory inspectors of the French Government and a representative of the Bureau of Labour, I had the opportunity of visiting Fierté sous-Jouarre and of ascertaining whether the same dangers wait upon this occupation in France as in England. If the English buhrstone mason is an intemperate man the French millstone builder is even more so. Both at home and abroad the industry is a decaying one but as there is still a considerable demand for these millstones the men are well paid. Most of the men in the millstone yards at Fierté sous-Jouarre are strongly alcoholic and the majority of them die between the ages of 30 and 40 years. When the men are not alcoholic some of them may live to the age of 60 years, but there are very few old men in the trade. As the men can make from 10 to 12 francs a day they usually work on Thursday, Friday, and Saturday and drink during the remaining days of the week. In shaping the buhrstone into the required wedges the men often use a double-pointed pick and rest either one or both knees upon the stone, an attitude which brings them into close contact with the stone. During this operation large quantities of dust are given off. The men, who were mostly of slim build, had, generally speaking, the healthy look of men who work in the open air; their ages varied from 19 to 40 years; one man who looked 60 years old was only 45 years of age; he had considerable difficulty of breathing but no cough. Several of the men had had hæmoptysis. The older-looking men were haggard but were not aged. Only a very few of the men wore respirators or attempted in picking the stone to lay the dust by means of sprays of water. The men who do not wear respirators stated that the work causes a particular dryness of the throat which obliges them to drink. The wearing of a respirator prevents this. Several of the men admitted that they drank on an average one litre of brandy daily. One of the younger men who was in the habit of drinking two litres of wine and half a litre of brandy daily stated that dust was responsible for one-third of the ill-health of the men and alcohol for the remaining two-thirds.

The pulmonary symptoms may come on suddenly after working a few years; they are difficulty of breathing and a sense of weight in the chest; there is no cough at first but a feeling of intense dryness in the throat. Dr. Gratiot, who has practised in the district for many years, told me that he had known of several men who began work at 16 years of age and had died from pulmonary phthisis at the age of 21 years. His opinion is that the lung lesion is tuberculous, but he acknowledges that he has not made any post-mortem examinations. Usually the illness commences with the symptoms of bronchitis: there are dry cough, loss of appetite, emaciation, hæmoptysis with signs of pulmonary excavation, laryngitis, and towards the end elevated temperature and night sweats.

BASIC SLAG WORKERS.

The crushing and grinding of the waste products formed during the manufacture of steel by the Thomas Gilchrist method is a very dusty process. In consequence of the large amount of phosphorus which it contains the material is much sought after as manure. Roughly speaking, Teeside slag contains 41 per cent. of lime, 13 per cent. of protoxide of iron, and 14 per cent. of phosphoric acid. During 1888 Middlesbrough was severely scourged by an epidemic of pneumonia and in some way or other the new industry was considered to be responsible for it. The late Dr Ballard, who was sent to the district by the Local Government Board to make an inquiry, reported that "the slag dust to which the epidemic has been attributed was not the cause of the pneumonia but that when from any cause pneumonia becomes epidemic persons largely exposed to the inhalation of this dust may, and do, suffer more than persons not so exposed and that the disease with them is of high fatality." Recent observations do not entirely support Dr. Ballard's contention. While admitting that slag dust causes cough and bronchial irritation which leads to chronic bronchitis and emphysema of the lungs Dr. J. Hedley,[6] one of the local practitioners who has had experience of the disease, is disposed to attribute the malady to alcoholic intemperance, carelessness on the part of the men, and unnecessary exposure to wet and cold, influences that outweigh those caused by slag dust. Recent statistics also of the medical officer of health of Middlesbrough do not point to slag workers as being specially prone to pneumonia. The experience on Teeside is different from that in Germany. Ernhardt[7] maintains that slag dust, both by its quantity in the air and its chemical composition, exercises a harmful influence upon the men who work in the dusty atmosphere of a slag-grinding shop. As medical officer to a large slag factory he has had unusual opportunities of studying the question and he finds that all the men sooner or later have respiratory troubles. They exhibit a susceptibility to pneumonia much as was suggested by Dr. Ballard. In one year 48 per cent. of the men suffered from pneumonia and in another 21 per cent. Ernhardt found healthy labourers attacked with pneumonia after working only two weeks, while others had recurrent attacks of inflammation of the lungs, as many as four times in succession, shortly after their return to work; 30 per cent. of the men died. Ernhardt's opinion is that the disease is purely chemical in its causation as there is an absence of the diplococcus pneumoniæ. It is more than probable that many of his patients did not suffer from pure pneumonia. On chemical analysis of the slag taken from the works near Greifenhagen on the Rhine it is found to be different from that at Middlesbrough. It contains, roughly speaking, about "24 per cent. of protoxide of iron, 8 per cent. of free unslaked lime, 40 per cent. of phosphate of lime, and 30 per cent. of silicate of lime."[8] In his experimental investigation of the irritation and injury inflicted upon the lungs of animals caused by the inhalation of slag dust Enderlen found evidence of a considerable amount of interstitial inflammation, which he regarded as partly the result of mechanical injury inflicted upon the lung by inhalation of the sharp angular particles of dust and partly chemical owing to the presence of unslaked lime In microscopical sections of the lungs of two slag workers who died from pneumonia Enderlen found typical pneumococci. Slag grinding is in Germany the cause of a larger amount of respiratory trouble than it is in this country and for that the difference in the chemical composition of the slag may be responsible.

GANISTER MINERS' PHTHISIS.

Dr. W. M. Robertshaw, medical officer of health of Stocksbridge, Sheffield, drew attention at the meeting of the British Medical Association in Manchester, 1902 (also in the *Journal of the Sanitary Institute*, April, 1900), to the high death-rate from phthisis among ganister miners and crushers. Ganister is a hard close-grained mineral consisting mainly of silica, of which it contains 95 per cent. Dr. Robertshaw found an annual death-rate of 17·2 per 1000 ganister workers, the average age at death being 39 years. Dr. C. L. Birmingham,[9] on the other hand, shows that the occupation is even more unhealthy than has just been stated, for he gives as the average annual death-rate from ganister disease 22·29 per 1000 workers. If proof were required of the part played by dust in causing lung disease it would be only necessary to compare the relative dangers run by the two different classes of ganister workers—viz., miners and surface men. Taking a particular mine in the Stocksbridge district and summarising the deaths from phthisis and respiratory diseases for the ten years 1891-1900 it was found that while 11 surface workers died from these diseases 61 miners had succumbed during the same period. In the five years 1891-95 the average death-rate at the age period from 35 to 45 years of males in England and Wales from phthisis and respiratory diseases was according to Dr. J. F. W. Tatham 0·52 per cent., while for the same period the average death-rate of ganister miners from the same diseases was 3·9 per cent. Writing upon this subject Dr. T. M. Legge,[10] in drawing attention to the difference in the mortality from phthisis between surface workers and ganister miners and the fact that the incidence of phthisis is ten times as great as in the general male population at corresponding ages, says that although ganister workers are short lived yet many of them had been employed for at least ten or 15 years.

Of the early symptoms of ganister disease mention is made

[6] Dangerous Trades, article by Dr. John Hedley, p. 390. Messrs. Murray and Co.

[7] Nothnagel: Diseases of Bronchi, Pleuræ, and Lungs, p. 663.

[8] Ibid., p. 664.

[9] Ganister Disease, Journal of the Sanitary Institute, vol. xxi., part I, p. 66.

[10] Annual Report of the Chief Inspector of Factories and Workshops for 1900, p. 486.

of debility, cough, and difficulty of breathing on exertion but there is an absence of hæmoptysis, of night sweats, and of rise of temperature. Physical signs of consolidation of the lung develop, followed by those of excavation. Death often comes suddenly and is due to heart failure. The relation of ganister miners' phthisis and tuberculous disease of the lungs may be dealt with, according to Dr. Robertshaw, under three heads: (1) those cases in which after the fibroid change has damaged the lungs true tuberculous phthisis plays the chief part; (2) those in which tubercle is found but which is only very secondary to the fibroid disease; and (3) those in which there is no tubercle at all, the disease being entirely due to the fibroid change brought about by the ganister dust. Dr. Robertshaw is of the opinion that the majority of the cases fall under the last two headings and that few of the cases are mainly tuberculous partly on account of their chronicity and partly owing to the fact that the pulmonary lesions found after death are not exactly the same as those met with in chronic tuberculous disease of the lung.

Portions of the lungs of two ganister miners who had died from silicosis were submitted to Dr. F. W. Andrewes, pathologist to St. Bartholomew's Hospital.[11] His examination proved beyond doubt the correctness of Dr. Greenhow's conclusions published many years ago in regard to dust diseases of the lungs—viz., the presence of nodular consolidation of the lung, deposition of black mineral matter around the bronchial tubes, arteries, and veins, and the fact that while the development of tuberculous phthisis is intimately associated with, it is yet independent of, the lesions produced by dust. Dr. Andrewes at the close of his admirable report of the second case says: "I conclude from the examination of these lungs that the primary changes are dependent upon the chronic irritation of an inhaled mineral dust which, being absorbed by the lymphatics, gave rise to a fibrosis which is lymphatic in its distribution in its earlier stages though it subsequently extends to large areas of lung tissue. Upon this fibrosis a secondary tuberculosis has been grafted; the tuberculous changes are more widespread and obvious in this case than in Case 1, but there is no evidence that the tuberculous disease is primary."

COAL MINERS' PHTHISIS OR ANTHRACOSIS.

I have so recently discussed this subject elsewhere[12] that I shall only briefly allude to it now. Coal miners' phthisis, formerly of common occurrence, is now rarely met with owing to the improved ventilation of the mines. So far as lung disease is concerned coal mining in this country is comparatively speaking a healthy occupation. When colliers become the subjects of bronchial and pulmonary catarrh they bring up large quantities of a black spit; it is thin and inky in colour and on microscopical examination is found to contain large cells studded with granules of coal. An interesting point in regard to anthracosis is that the lungs may be deeply pigmented for years without any signs of ill health and that there are some forms of coal dust which do very little harm to the lungs compared with others. The larger the amount of stony particles in coal the greater is the tendency for the lung to suffer. Virgin coal contains no micro-organisms. How far the particles of carbon exercise, as some writers maintain, an antiseptic influence upon the lung I am not prepared to say.

GOLD MINERS' PHTHISIS.

"Gold miners' phthisis" formed the title of a paper by me which was published in THE LANCET.[13] To this subject, therefore, I must only briefly allude. In consequence of working in mines the air of which is impregnated by dust given off from the percussion drills used for boring the rock, also the absence of any satisfactory system of ventilation, Transvaal gold miners are a short lived class of men. As an illustration of the disastrous results of dust in ordinary rock mining Mr. Francis Fox, M.Inst.C.E., says that he was personally connected with a certain heading which was being driven by a gang of 16 miners, all fine, powerful fellows, and yet within a comparatively short time every one of them had died from consumption. Without giving absolute credence to the statement that the average life of a rock driller in England is eight years and in South Africa only four we cannot but, on the other hand, attribute a tendency to miners' phthisis on the Rand to the fact that as the rock drillers in South Africa work on contract the eagerness of the men to earn from £60 to £70 a month deters them from waiting until the dust has settled after an explosion and consequently very shortly after a blast has taken place the miners go into the poisonous and dusty atmosphere. Although dust is generally admitted to be the cause of silicosis in the Rand miner there is a belief that the impure atmosphere in which the miner works is also responsible for part of the illness. The air of the South African mines contains a high percentage of carbon monoxide and carbon dioxide and is laden with the nitrous fumes given off by the use of the higher explosives. When miners become "gassed" the symptoms generally point to an acute intoxication which soon subsides on the men being brought to the surface. As in some forms of gas poisoning—e.g., nitric peroxide—there is found after death acute congestion of the lungs it is a point worth investigating whether as a consequence of the repeated inhalation of an atmosphere poisoned by the gases already mentioned, but not present in sufficient quantity to cause intoxication, there may not be induced a diminution of the vital resistance of the lung followed by structural alterations.

In December of last year Lord Milner appointed a commission composed of mining engineers, chemists, and medical men "(1) to inquire into the extent to which miners' phthisis prevails; (2) to ascertain the cause of the disease; and (3) to make recommendations as to the preventive and curative measures which should be adopted by legislation or otherwise."[14] The commission reported that miners' phthisis is largely found in the rock-drill men of the Witwatersrand district. Of 4403 miners working underground in the gold mines of the Witwatersrand 1210 were medically examined by the commission, and of these 187, or 15·4 per cent., were found to be suffering from the disease, while a further 88 were suspected cases. Of these 187 men, 20 gave a family history with a tendency to phthisis. That miners' phthisis is particularly prevalent in rock drillers whose occupation is admitted to be extremely dusty is shown by the fact that 172, or 91·98 per cent., of the men had been employed on rock drills. Out of 1377 rock drill miners employed on the Witwatersrand it is stated that 225, or 16·34 per cent., had died during the two and a half years immediately preceding the war. All the evidence, practically speaking, shows that the inhalation of minute particles of inorganic matter is the primary and exciting cause of the malady. One point to which attention is drawn, and very properly too, for it applies pretty well to all forms of pneumoconiosis, is the difficulty of diagnosing the disease in its earliest stages; also this very important fact that once the disease is extensively developed it gradually but surely destroys life. The medical evidence tendered to the commission did not disclose the existence of an appreciable amount of tuberculous disease among the miners. A similar opinion was expressed by me more than a year ago, which recent experience has confirmed. The lungs of a Rand miner who died a few months ago and whom I had watched carefully during the greater part of a year were perfectly black and consolidated but free from tubercle. At his death this miner was 31 years of age. A few months before he died I asked him to supply me from memory with the names and ages of men who had worked with him in the Transvaal mines and who had died from phthisis. He knew of 16 men who had succumbed between the ages of 35 and 45 years after having worked for five or six years; also of 17 men, aged from 28 to 35 years, who had died, having worked on an average from four to five years. These and the other statistics I have given show what a fatal calling rock drilling on the Rand is and of the immediate necessity for introducing into South African mines those precautionary measures which have made coal mining in our own country a comparatively speaking healthy industry.

METALLIC TRADES: FILE CUTTING BY HAND, STEEL GRINDING, &C.

Of the various Sheffield trades file cutting by hand is admitted to be one of the most unhealthy. Apart from the risks of lead poisoning and its attendant evils, file cutters have a mortality from pulmonary phthisis far above that met with in most trades. Dr. John Robertson, formerly medical officer of health of Sheffield and now of Birmingham, has been good enough to favour me with some statistics. Taking the mortality returns from phthisis and respiratory diseases

[11] Ibid., p. 493.
[12] British Medical Association Meeting, Swansea, August, 1903.
[13] THE LANCET, June 14th, 1902, p. 1677.
[14] Report of the Miners' Phthisis Commission, 1902-03, Pretoria.

of several occupations as supplied in Part 2 of the Supplement issued by the Registrar General to his fifty-fifth annual report it will be observed that in only three other occupations is the mortality from phthisis and diseases of the respiratory system greater than it is amongst file cutters and that of these three other occupations one is that of cutler, scissor maker, &c., including grinders, and that when the mortality amongst agricultural labourers is taken as unity the mortality from these diseases amongst file cutters is found to be really four times as great.

Taking for 1889 the mortality figures of phthisis in agriculturists as 106 and diseases of the respiratory system as 115, the mortality figure from these diseases in file makers was 402 and 423 respectively, while in cutlers and scissor makers it was 382 and 518. Taking the mortality returns for Sheffield for 1902 there were registered the deaths of 116 steel grinders; of these 60 were certified as due to phthisis, equal to 51 per cent.; of 116 cutlers who died 20 succumbed to phthisis, equal to 17 per cent.; of 69 file cutters nine died from phthisis, equal to 13 per cent.; while of 321 labourers of various kinds who died in Sheffield during 1902 40 died from phthisis, equal to 12 per cent. High as is the mortality from phthisis among the steel and knife grinders of Sheffield it is not so high as that in Germany. In 1898 the Government factory department at Düsseldorf issued a special order in consequence of the prevalence of phthisis among knife grinders. During "the ten years 1885-95, 72·5 per cent. of the deaths among knife grinders in the Solingen district were due to phthisis, against 35·3 per cent. for the rest of the population over 14 years of age, and an official medical examination showed that out of 1250 grinders only 85 were over 45 years of age."[15] What makes knife and scissor grinding such a dangerous occupation from a phthisis point of view is the fact that the grinding is usually done upon a dry stone. Hand file cutting, on the other hand, is dangerous, not so much because it is a dusty trade as that it is generally carried on under extremely bad hygienic conditions. The shops in which the men work are small, low-roofed buildings. They are generally situated at the rear of other houses and usually look into a courtyard. The shops have simply an earthen floor, are overcrowded, have no fireplace as a rule, and as the work is cold ventilation by an open window is never encouraged. While the trade is a dusty one the circumstances in which it is carried on favour infection by tubercle. Hand file cutters are notoriously a dirty class; very few of the men pay any attention to personal cleanliness. Add to the harmful influences of working in a dusty atmosphere and breathing an impure air, the possibility of tuberculous infection owing to the contaminated state of the earthen floor by expectoration, and the high death-rate from phthisis is not only explained but the lines are indicated along which the high mortality may be diminished.

Dr. Arthur J. Hall of Sheffield has been good enough to send to me for inspection the lungs of a steel grinder who died from phthisis, also some microscopical sections. The lungs, which are greyish-blue in colour, show very distinct excess of fibrous tissue with here and there in the upper lobes cavities of various sizes in all probability due, as Dr. Hall states, to tuberculous infection. On examining sections of the lung, particles of dust are observed to be freely but unevenly distributed throughout the fibrotic tissue. It is difficult to say how far these granules are particles of stone or particles of steel. In the ordinary process of wet grinding the quantity of dust given off from a stone is not great, but when the men are preparing a new grindstone and are what is called "racing" it a considerable amount of dust is given off.

POTTERS' ROT; POTTERS' ASTHMA.

The liability of potters to pulmonary disease has for centuries been known. Ramazini drew attention to it in 1750. Sir Charles Hastings in his work on Bronchitis published in the second decade of last century makes special mention of it. Dr. Greenhow found that potters' phthisis or asthma resembled that to which colliers, razor grinders, and other operatives who inhale dust are liable. The pottery workers who suffer most are the china scourers, flat pressers, and hollow ware pressers, but workers in some of the other processes are not exempt. China scouring is probably the most dangerous. True potters' phthisis, according to Dr. S. King Alcock of Burslem, is the result of inhalation of clay dust. This, however, is a condition which the Home Office has almost improved out of existence. The main constituents of the clay used in pottery manufacture are silica and alumina; on the other hand, in the dust given off during china scouring there are fine particles of flint. Dr. Greenhow regarded the malady as a chronic bronchial affection to which either pneumonia or tuberculous phthisis might be added. The disease is therefore often mixed in character, being partly of the nature of a bronchial affection excited by a mechanical irritant, dust, and partly tuberculous. Dr. Alcock considers the sequence of pathological events to be an irritation fibrosis which may sooner or later cause fatal results by its displacement of true lung tissue and concomitant want of aeration or by becoming the seat of tuberculous infection. It is the siliceous constituent of potters' clay that accounts for the mischief caused to the lungs. The late Dr. J. T. Arlidge[16] maintained that the particular branch of the industry that suffers most is that in which the largest amount of dust is evolved—hence the greater frequency of lung lesions among turners and pressers than among throwers; but the strongest example of injury to health from dust is found in the case of the china scourers, always women, who have to brush and to beat off the dust from the china ware after it has been fired and is being removed from the saggars. Potters' phthisis when uncomplicated by tubercle "advances imperceptibly and without constitutional disturbance. One of its first symptoms is a clearing cough on first rising, but soon to be met with on any change of temperature and accompanied by shortness of breath. Hæmoptysis does not usher in the malady and more frequently than not never makes its appearance. The appetite and the general bodily functions remain long intact; there is no febrile action, no accelerated pulse, no hectic, and no rapid emaciation."[17] By degrees the cough becomes more paroxysmal and is even more violent than that of ordinary phthisis, signs of consolidation are detected, and, as in all forms of pneumoconiosis, an urgency of dyspnœa is developed out of all proportion to the ascertained extent of consolidated lung. Even in advanced cases Dr. Arlidge found that the general aspect and the physiognomy in potters' phthisis differ from those of tuberculous phthisis. "The features are rather those of asthmatical subjects; the countenance is not pinched or sunken; the lustrous eye, the often pink and transparent skin of phthisis, the clubbed finger ends, and the incurved nails are wanting." As might be expected, the advent of tuberculous disease in the lung will alter the picture of fibrosis just drawn. Dr. Arlidge found the mean age at death of male potters, aged 20 years and upwards, to be 46½ years, whilst that of non-potters was 54 years, and that while potters died from consumption in the proportion of 12·97 per cent., in non-potters the index only reached 9·20 per cent. The excessive mortality of pottery workers is therefore mainly due to phthisis and disease of the respiratory organs. "The mortality of potters from bronchitis is more than four times as high and that from other respiratory diseases is three times as high as the mortality of occupied males in the aggregate. Potters succumb to non-tuberculous disease of the lungs much more rapidly than they do to tubercular phthisis, and it is certain that much of the so-called potters' phthisis ought properly to be called cirrhosis of the lungs."[18]

During one of my official visits to France while acting as medical expert to the Home Office I had the opportunity of visiting some of the porcelain factories in Limoges, where I was informed that a larger proportion of workers in the china factories die from phthisis and disease of the lungs than persons engaged in other trades. During 1887, of 75 deaths registered in Limoges as occurring among porcelain makers, 36 were due to phthisis, and in 1888 of 30 porcelain makers examined by Dr. Raymondaud of the Limoges School of Medicine 20 were found to be suffering from pulmonary consumption and two had had pneumonia. Professor Lemaistre, with whom I had the opportunity of discussing this subject, found on analysing the air of the workshops that it contained particles of granite, flint, dried glaze, charcoal, &c., also that the air in the workshops which the brushers-off, the finishers, and the porcelain makers breathed contained 640,000,000 particles of dust to the cubic metre. It is to the presence of this large number of particles of

[15] The *Times*, Industrial Germany, Solingen, Sept. 21st, 1903.

[16] Diseases of Occupation, p. 310.

[17] Arlidge: Diseases of Occupation, p. 313.

[18] Dangerous Trades; article by Dr. J. F. W. Tatham, Dust-producing Occupations, p. 136.

dust in the air that is attributed the frequency of bronchitis and of pulmonary disease. The average age at death of men from fibroid phthisis in the potteries of Limoges is 43 years and of women 38 years.[19]

GASES.

Time will not permit of me dealing with occupation lung disease caused by the inhalation of vegetable dust and it will only allow me briefly to touch upon those maladies that are caused by gases. Most of the ill-effects that follow inhalation of gases by men when at work partake too much of the nature of acute intoxication and are rather illustrations of rapid death due to the entrance of poison by the lung than of disease of the lung. In death caused by inhalation of nickel carbonyl there has generally been found acute congestion of the lungs; so, too, this arises as a consequence of breathing nitric peroxide formed after explosion of nitrous compounds. In the case of men engaged in chemical works in manufacturing caustic soda and bleaching powder, &c., the risks are immediate and remote. In what is known as the Leblanc process Mr. A. P. Laurie[20] draws attention to the large quantities of hydrochloric acid gas that are liberated. This gas has a suffocating and irritating effect when breathed and if given off in large quantities respiration becomes impossible. When breathed in even small quantities over a lengthened period it is injurious. Although the workmen protect themselves with a flannel muffler tied over the face the acid fumes cause the teeth to rot. Were it not for a similar protection worn by the bleach packer he could not stand in the chlorine chamber more than a few seconds. The effects of chlorine are irritant and suffocative, and although these effects are usually temporary they yet lay the seeds of bronchitis and emphysema. Chemical workers have a comparatively low death-rate from phthisis—162 as against 402 of file makers and 185 of occupied males; but they have a very high mortality from diseases of the respiratory system—viz., 502 as against 423 file makers and 241 occupied males. The mortality from bronchitis in chemical workers is 249, as against 83 for occupied males. This figure 249 is the largest of all ordinary trades and, so far as diseases of the respiratory system are concerned, there are only two industries in which higher figures are given—viz., cutlers 518 and pottery workers 668. Laurie gives it as the opinion of medical men in St. Helen's that such gases in the air as sulphur dioxide, hydrochloric acid, nitrous fumes, and chlorine are beneficial to phthisical patients, for not only is phthisis rare in that town, but when present the progress of the disease is slow. A similar opinion has been expressed by Dr. James Beatty of Belfast who attributes the low death-rate from phthisis in chemical workers to some antiseptic action of such gases as sulphur dioxide and chlorine.

PATHOLOGY OF PNEUMOCONIOSIS.

The particular structural alteration of the lung found in pneumoconiosis is an excess of fibrous tissue which transforms the spongy texture into material of a solid nature. The bronchi are seen to be wider than usual, with thickened walls, and from them there radiate outwards to the surface of the lung thick strands of fibrous tissue. Occasionally small cavities are seen. The pleura at places may be thickened and adherent. Although Laennec described cirrhosis of the lung it was Corrigan of Dublin who revived interest in the malady in 1838, who demonstrated the association of pulmonary fibrosis with dilatation of the bronchial tubes and who spoke of the lesion as interstitial pneumonia. Local irritation preceded by diminished resistance is believed to be capable of inducing this form of chronic inflammation. Fibrotic reaction to irritation is not so strongly marked in the child as in the adult, and it is probable, although it is difficult to prove the statement, that in the case of adults some persons exhibit a greater idiosyncrasy to fibrosis than others. A great deal depends, too, for example upon the character of the dust that may be inhaled. In anthracosis miners may have inhaled for years particles of coal dust without injury. Claisse and Jouè[21] did not find beyond the discolouration any marked structural alteration in the lungs of animals that had breathed for a short time daily during several months smoke given off from burning turpentine. The particles of carbon in their experiments were too soft and altogether different from the hard angular particles of stone or metal found in the lungs of the Transvaal gold miner or the Sheffield steel grinder. The pulmonary parenchyma can tolerate the presence of certain particles but not that of others, and when pathological changes occur it is not always easy to say how much of these is the result of the direct action of dust itself or of superadded infection. To some writers there is no such disease as simple inflammatory pneumoconiosis; all are the result of secondary infection. Particles of dust, if small and soft, may penetrate the walls of the alveoli and produce no effects, but if they are hard, angular, and large they wound the tissues and by irritating them create a soil upon which microbes may flourish and cause secondary infection.

Previous diseases of the lung may be a cause of fibrosis as is seen in acute pneumonia becoming chronic. What is it that brings about the development of an excess of fibrous tissue in this latter affection? We know how the previous debility of a patient gives a bias to his illness and how the presence of microbes in the lung other than pneumococci may influence his ultimate recovery. The presence of such other microbes as those of influenza or of tubercle, also of streptococci, may convert an acute into a chronic or interstitial pneumonia and there is every reason to believe that repeated catarrhs and the presence of irritant dust that has been inhaled will induce the same results. What is the fibrosis that occurs in all these circumstances? Is it an inflammatory or a dystrophic lesion? The supporters of the inflammatory theory hold that the exudate which has been thrown out is not absorbed and therefore it plays the part of a foreign body which irritates the connective tissue and causes it to become infiltrated with round cells that ultimately fibrillate. According to the dystrophic theory, on the other hand, a diseased portion of the lung becomes useless in function, loses its structural character, and becomes replaced by a low form of fibrous tissue which keeps encroaching upon the pulmonary parenchyma and ultimately replaces the spongy substance of an air-filled organ by material of a more solid nature.

MICROSCOPIC ANATOMY.

The narrow openings of the nares, the abundant secretions of the nasal, laryngeal, and tracheal mucous membranes, as well as the activity of the ciliated epithelium which lines the respiratory tract are natural barriers to dust reaching the lungs and yet in time, if the inhalation of dust is frequently repeated and the atmosphere is in any way thick, these fail to prevent its entrance. In the case of a small, rough, long-haired, terrier dog, whose mouth and nose were pretty well concealed by hair and who was simply placed in a coal-dust atmosphere for an hour or so every day or two during a period of four months, the lungs were found to be studded with bluish-black particles of pigment and the bronchial glands were inky-black. As the conditions under which this animal was placed were exactly the same as those of coal miners when at work, only perhaps somewhat exaggerated, the lesions therefore may be taken to represent fairly accurately the development of uncomplicated anthracosis in the coal miner. Any pathological remarks made in regard to this experimental anthracosis may, I think, be equally applied to pneumoconiosis in general. As already mentioned there are in coal dust two constituents to be considered—viz., the comparatively soft carbon and the stony particles to which the carbon adheres. It is the stony particles which cause the greatest amount of irritation to the lung when inhaled. In addition to signs of reactive inflammation there can be observed in microscopical sections of the lung either massed together or discrete, numerous particles of dust, also numerous large phagocytic cells laden with minute granules of coal in the alveolar wall and surrounded in places by masses of small round cells. Whether these phagocytes are normal habitants of the pulmonary alveoli, altered epithelial cells, or enlarged leucocytes stimulated into activity by the presence of dust in the lung and overfilling of the capillaries in consequence I am not prepared to say. They are found *par excellence* in certain catarrhal conditions—e.g., broncho-pneumonia. These wandering cells take up coal and other dust with great rapidity. Many of them make their way to the bronchial glands where they either unload themselves of their burden or in the act of disintegration discharge their contents. In one of the sections of a bronchial gland this is

[19] Report to Her Majesty's Principal Secretary of State for the Home Department upon the Pottery Industry of France, by Thomas Oliver, M.D.; Messrs. Eyre and Spottiswoode, 1899, p. 14.

[20] Dangerous Trades, by T. Oliver; article on Chemical Trades, Laurie, p. 588, &c.

[21] Recherches Expérimentales sur les Pneumoconiosis, P. Claisse et O. Jouè, Archives de Médecine Expérimentale et d'Anatomie Pathologique, Paris, 1897, p. 205.

quite apparent. A few of these phagocytic cells can also be seen in the small bronchi and although the thick basement membrane of the large bronchial tubes forms an effective barrier to the entrance of dust *per se*, yet here and there in the sections can be seen phagocytic cells penetrating the mucous membrane of the smallest bronchi and carrying in with them considerable quantities of coal dust. A few of the minute bronchioles have become occluded by particles of dust and the parts of the lung supplied by them are in a condition of atelectasis. Around the walls of the infundibula, in the alveolar walls, also in and around the mucous membrane of the smallest bronchi, may be observed minute particles of coal dust either lying free or deposited in the interior of the macrophages already alluded to. The facts that these pigmented wandering cells can be detected carrying off dust in the direction of the bronchial glands and that they are met with in lungs that have not been specially exposed to dust show that they are scavengers and that in thus operating they are one of nature's methods of clearing the lungs of dust.

In the later stages of pneumoconiosis the round cells thrown out under the influence of inflammation, which lie at first loosely in the pulmonary parenchyma, ultimately become transformed into fibrous tissue which assumes a laminated form around the vessels and gives to the lungs the nodulated and consolidated feeling experienced on handling and cutting into these organs. The newly formed fibrous tissue is at places observed to be strewn with minute particles of pigment and as these are usually extremely minute they must have been deposited there, many of them, by the wandering cells during their disruption, while the harder and larger particles of angular form have been deposited without the influence of cells. However much these larger particles of inorganic matter may by themselves have been a source of direct irritation to the lung and a cause of reactive inflammation, it is more than probable that the phagocytes laden with particles of dust throw off, just as bacilli evolve toxins and leucocytes alexins, some material which acts as a poison and an irritant to the connective tissue of the lung. The sclerogenic power of tubercle bacilli and of their toxins is well known, and if these micro-organisms are capable of inducing well-marked fibrosis of an organ there is no reason why the large leucocytes in the lung in abnormal circumstances may not secrete material that also stimulates into activity the reproduction of the connective-tissue cells. In the lung it is difficult to say how much of the reactive inflammation is the result of the direct irritation by dust and how much the result of laden phagocytes, but that a sclerogenic power is exercised by the dust-laden phagocytes is shown by the fibrosis that has taken place in the peribronchial glands of a patient who died from steel grinders' phthisis. The bronchial glands in that patient had undergone a change of structure akin to that in the lungs. The cause of the fibrosis in this man was probably the disruption of dust-laden cells in the glands and the liberation of pigment particles, but on this, as on several other points in the pathology of pneumoconiosis, it is well not to dogmatise too absolutely at present.[22]

THE OPERATIVE TREATMENT OF TUBERCULOUS GLANDS OF THE NECK.

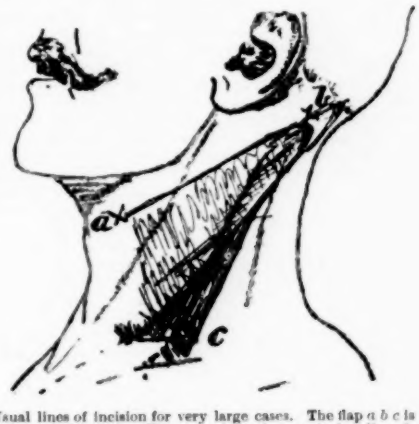
BY W. GREENWOOD SUTCLIFFE, F.R.C.S. ENG.,
HONORARY SURGEON TO THE ROYAL SEA-BATHING HOSPITAL, MARGATE, AND TO THE MARGATE COTTAGE HOSPITAL.

So much has been written on this subject that it is difficult to say anything that has not already been published by surgeons of wider experience and greater knowledge, but as a very large number of these cases are seen in Margate, at the Royal Sea-Bathing Hospital and elsewhere, many of which have been operated upon by other surgeons, a few remarks founded on that experience may even now not be out of place.

It is generally recognised that climatic and hygienic treatment with a liberal dietary are important factors in securing the diminution in size, and in some few cases the actual disappearance, of the glands, though it is but seldom in an old-established case that their removal is to be effected by other than surgical means, and it is with those cases that I propose to deal. In undertaking an operation on tuberculous glands, especially in the neck, several points are to be considered. First, the desirability of completely clearing out the glands, however deeply situated, so as to avoid the disappointment of the patient at the recurrences that are so often seen. The second point is that all operations should be planned with a view to make the resulting scars as little visible as possible. The third point is that as these glands are seldom if ever in themselves fatal and are only rarely followed by tuberculous general infection, the operation should be attended with as little risk to the patient and with as little damage to the vessels and nerves of the neck as is consistent with a complete removal of the disease. No routine incision or operation can be laid down for all cases for the obvious reason that the groups of glands affected vary so much in size and in situation. In some instances a few superficial glands only are affected and their removal is an extremely simple matter, but such uncomplicated conditions form a very small proportion of those that are sent to Margate.

The older incision along the anterior border of the sterno-mastoid, especially when it extends along its whole length, leaves a most unsightly scar, and the incisions are now always planned so as to fall as far as possible into a natural sulcus of the skin or where the mark can be concealed easily by the hair or dress. The incision usually adopted for the most commonly enlarged set of glands, that in the anterior triangle beneath the sterno-mastoid, is one following accurately the creases of the neck as first suggested by Kocher of Berne. In most necks two slight grooves can be made out in the skin running obliquely across the neck from the thyro-hyoid region to below the lobe of the ear, and one of these folds is selected as the site of the incision according to the position of the larger part of the glands to be removed. Through this transverse incision fairly large masses are readily accessible, especially when both edges of the cut are freed from the underlying structures for about an inch or so.

Where the greater part of the mass is in the posterior triangle an additional longitudinal incision is made from the posterior edge of the swelling downwards and obliquely forwards so as to hit the posterior border of the sterno-mastoid about its middle. In this case the transverse incision need not be prolonged so far backwards. In very large cases where apparently all the glands in the neck are diseased the scar that shows the least is to be made by turning a flap forwards and downwards. The transverse incision is carried well backwards to a little below the posterior border of the mastoid process, from that a longitudinal incision is carried down obliquely so as to reach the sterno-mastoid a little above the clavicle, and the whole of this



Usual lines of incision for very large cases. The flap *a b c* is thrown forward. When healed the posterior line is altogether invisible from the front. Most of the smaller cases are dealt with by an incision in the line *a b*.

[22] I regret that at the time of writing the above I had not noticed the very important work which was done by the late Dr. J. W. Washbourn on the inhalation of fine particles and which is reproduced in the Croonian Lectures (see THE LANCET, Dec. 6th, 1902, p. 1528).

triangular flap is dissected up and thrown forwards. When replaced after removal of the masses of glands, the posterior longitudinal cut is nearly all out of sight and the transverse scar shows very little—so much so that on seeing the patients some months after it would hardly be credited that such an extensive dissection had been carried out—and while the operation is being done the whole dangerous area is under direct control. These incisions are necessarily modified by the presence of broken-down skin, superficial abscesses, and by the existence of scars of previous operations. It would seem obvious that where a scar already exists that its site should be utilised for the new incision, the old scar, if fibrous and unsightly, being removed at the same time. But this does not appear to be the universal practice in the metropolitan hospitals, as there was recently in the Royal Sea-Bathing Hospital a girl who had been operated on in two different London hospitals and who on one side showed a long scar in front of the muscle and no less than three parallel ones behind. The other side had two crescentic scars, evidently the site of a fairly large operation, from beneath one of which incisions I have removed a considerable quantity of deep caseous glands.

When sinuses exist their orifices should be where possible included between elliptical incisions so as to make a transverse scar. Any damaged skin in connexion with superficial abscesses should be removed with a free hand, when it will in nearly all cases be possible to sew up the wound after the operation has been completed. In most cases when there is a superficial abscess projecting out from the neck the deeper glands will be found to be enlarged and suppurating and their free removal will allow a much more liberal excision of the damaged skin than would otherwise be the case.

Whatever incision be adopted, as every writer on this subject has insisted, attention must be paid to two very important structures, the internal jugular vein and the spinal accessory nerve, neither of which, and most assuredly not the latter, should be interfered with. At one time my impression was that the removal of glands *en masse*, rather than individually, increased the danger that these structures run, but a more extended experience has convinced me that such is not the case and in my later cases I have always endeavoured to extract the diseased structures with their capsules intact and as far as possible in one mass or chain. Taking the more common cases, those in which the enlarged glands are situated in the anterior and posterior triangles, their exposure is effected by the transverse incision I have already mentioned, the edges of skin and superficial fascia are freed for about an inch throughout the whole length of the cut, the anterior edge of the sterno-mastoid is defined, and the deep cervical fascia between it and the front of the neck is freely divided. This facilitates the exposure of the glands and allows the muscle to be retracted easily; the often large communicating facial vein is generally easily seen and avoided or ligatured if necessary. The muscle is freed for some distance above and below the margins of the incision from the glands beneath and then they themselves can be dealt with. The mass is seized and pulled up and its lower end defined; when separation from the underlying structures is begun the carotid sheath with the bulging internal jugular vein at once comes well into view and with that in sight there is no necessity to divide it. Even in very old cases where the masses were of enormous size and the adhesions particularly dense and fibrous the capsule of the glands has peeled readily enough off the vein. There is fortunately a fairly thick layer of fascia constituting the carotid sheath between the glands and the vein and it is to this intervening layer of fascia rather than to the thin-walled vein that adhesions are usually seen. Personally I have found after getting the glands raised at the lower end that separation of the mass from the sheath is best effected by the point of a sharp scalpel; the vein is more likely to be torn by a so-called blunt dissector applied with even slight force than injured by the point of a knife carefully used on the under surface of the glands. My experience is that once the mass is freed from the place where it is usually adherent to the sheath—that is, at its lower end—it is quite possible to peel it upwards. Although the ligature of the vein apparently makes no difference—in two of my earlier cases it was torn and had to be tied and Mr. W. Watson Cheyne[1] recommends it as almost a routine procedure—the deliberate obliteration of such a large vessel should, I think, be avoided as it is possible to clear out the triangles very effectually and still to leave the vein intact. Further, it is permissible to doubt with Mr. W. H. A. Jacobson[2] whether the effect of the ligature on both sides of the neck on the cranial circulation is altogether harmless. I also question whether it adds in any way either to the rapidity or the ease with which the operation is performed, as the vein itself requires a ligature at both ends and so do as a rule four or five of its tributaries, including the facial, lingual, and superior thyroid; and in old cases with sinuses the risks of complications of a septic nature are obviously greater. As a rule the whole of the glands of the anterior triangle and those under the sterno-mastoid as far as the spinal accessory nerve can be removed through this transverse incision after separating them from their connexions and working entirely from the front of the muscle. In the larger cases I generally find that the chains of glands are practically divided into two by the spinal accessory nerve which in the posterior triangle crosses the lower part of the space in a kind of sulcus in the mass, and it is as well on reaching its vicinity in the upper part of the anterior triangle to have the muscle well retracted, when the nerve can be brought into view, as it is liable to be cut in separating the glands from the fascia on the under surface of the sterno-mastoid just where the nerve enters it, and is also in danger as it lies over the transverse process of the axis on its oblique course backwards into the muscle. For here a fairly constantly enlarged group of glands is to be found beneath a tough fascial covering between the axis and the mastoid process, and as the dissection is necessarily carried on at a considerable depth the muscle should be pulled well backwards and the nerve identified and avoided. Where there is a fairly large mass in the upper end of the posterior triangle, after loosening most of the glands from the front, and particularly after clearing the vein and the spinal accessory nerve, a vertical incision should be made along the back of the muscle, its edge should be defined and lifted from the glands beneath, and their removal is then proceeded with by working from behind forwards until the connexions with the anterior group are reached. The posterior set of glands will also have to be separated from the carotid sheath and this procedure is very much facilitated by the previous exposure and definition of the vein through the anterior wound. Even if the glands pass, as they occasionally but only rarely do, beneath the vein, they are readily separated from it as the vein itself can be retracted, when by pulling on the already loosened group of glands the deeper ones can be released with a few touches of the knife. It is seldom requisite to divide the sterno-mastoid as the muscle can be lifted up quite sufficiently for all practical purposes. If the submaxillary glands are enlarged their removal is a very simple matter and they are best cleared out of the way first. The branch of the facial nerve to the lower lip can hardly escape division and the facial vein has often to be divided between ligatures, but the labial paralysis as a rule improves in a few months and the division of the vein is of not much importance.

It is well in the larger cases to remove the glands in two or more groups so as to insure the definition of the spinal accessory nerve in the posterior triangle, and in perhaps most cases it may be easier to clear the anterior group out of the way rather than to bring them all out with the posterior ones. Again, in the larger cases, in working in the lower part of the area under the sterno mastoid where a chain of glands, usually separate from the upper groups, often extends below the clavicle in close contact with the jugular, vertebral, and innominate veins the glands should be pulled well out behind the muscle and separated from the carotid sheath, brought well into view by having the sterno-mastoid drawn firmly forwards. Once the process of separation is started by dividing the fascial attachments to the sheath their removal is effected with little risk. In this situation a blunt dissector is a highly dangerous instrument as the large veins in this region are put on the stretch and would tear easily. The glands should be pulled well into actual sight and their excision should be carried out by light touches with the point of the scalpel directly on to the capsule of the gland. It is well not to pull glands out from under the sternum and the clavicle unless their attachments can be brought up with them and the position of the thoracic duct on the left side should be remembered before attempting the removal of deep and adherent glands in this highly dangerous situation. If in addition the subclavian glands are enlarged their removal is

[1] Surgical Treatment, part 6, p. 148.

[2] Operations of Surgery, fourth edition, p. 560.

best effected at a subsequent operation. Access to the glands is obtained by a transverse cut across the space, about an inch above the clavicle, and the superficial veins having been tied and divided the space is cleared from above downwards. Here the capsules of old glands are often adherent to the pleura and here, as a rule, it is better not to attempt to remove the capsule but to incise it and to shell out the glands. This region is perhaps the least satisfactory in the neck; the glands are often very adherent, frequently several veins require ligature, and it is most difficult to apply pressure with any comfort to the patient when the dressings are applied. Where both subclavian and axillary sets require excision the question of dealing with both at the same operation is always considered, but if the case be at all a large one, and especially if it be complicated by sinuses or scars of previous operations, the operator will perhaps best serve the interests of his patient by deferring the axillary region till the subclavian has healed. When the glands are removed in this way with as much of the cellular tissue as is possible with them, the resulting wound should show a complete dissection of the anterior and posterior triangles, and unless the carotid sheath with its branching vessels in front and the muscular wall of the posterior triangle behind are seen quite clearly it is impossible to say with certainty that a goodly portion of the capsules of the glands, and not improbably many of the glands themselves, have not been left behind to give trouble at a later date. Where sinuses have been present or where broken-down glands have burst in the wound I have been in the habit of flushing out the entire area with a 1 in 1000 solution of biniodide of mercury and so far have had no cases of sepsis. All hæmorrhage is, of course, carefully arrested, the bleeding points are tied with fine silk, and the wounds are sewn up with the finest gossamer gut, a large number of stitches being inserted and pressure kept up by a very copious dressing. It is well to remove the stitches not later than the fourth day as otherwise the stitch marks will show, and to insure healing of the deeper parts of the wound it is well to keep the patient lying down for from ten to 14 days at least.

I have certainly seen good results follow in Margate from the more partial operations, such as incising and curetting a superficial abscess and scraping out the underlying glands, or the dissection of the greater part of the glands off the sheath and scraping the rest, but the after-treatment of these cases included prolonged rest and the best of open-air treatment and food. Such conditions are only obtainable when the patients are well-to-do and can give time and attention to the treatment, whereas with a more complete operation—and I have treated nearly 100 cases of various sizes in this manner—healing is as a rule rapid and permanent and the thickened masses under the scar that are often seen after a partially cleared case appears to have soundly healed scarcely ever occur. Recurrences of glandular enlargements certainly may, and often do, take place if the general health of the patient be not maintained by keeping him in a proper atmosphere and surroundings, but at all events recurrence in the same place is practically impossible as all glands and infected cellular tissue have been removed from the operated area.

The rapid improvement in the general health of the patients after these operations is quite remarkable in spite of the frequently difficult and tedious dissections incurred in clearing the diseased areas; such improvement is no doubt accelerated by the system at the Royal Sea-Bathing Hospital of putting the patients in the open air and practically on the sea front almost on the day after the operation, as my recollection of such cases in London and a large provincial hospital is by no means so favourable. Here in Margate the results of clearance in cases where large masses are much broken down and where the contents of the capsules are of a cheesy, semi-fluid consistence are almost always satisfactory, the patient's strength is quickly built up, and if the other side or the axillæ have to be dealt with a week is usually a sufficiently long interval. If both sides are affected and the glands are not excessively large I usually clear them out at the same operation, but considering the often feeble condition of the patients it is hardly wise to subject them to an anæsthesia for more than 90 minutes at a time and this limit is often exceeded for one side, though possibly operators of greater experience would look on this as an extremely liberal estimate. I have had cases this year where four and five operations have been performed on the same patient, a different area being cleared at each sitting; in one case in particular, that of a young adult female who had already had a foot amputated as a child for tuberculous disease, both sides of the neck and both axillæ were cleared in three weeks. Both sides of the neck were treated by throwing a flap forwards as already described and the triangles were completely cleared. The scars of the operation are scarcely visible at all from the front and the improvement in the patient's appearance and general condition when she left the hospital a few weeks after the operations was enormous.

Some months back my attention was directed to a communication in the *British Medical Journal* quoting four or five cases of meningitis occurring in patients after removal of tuberculous glands. I have only seen one case of this condition occur after operation on the glands and I have been present at several hundreds. I have seen several cases occur at the hospital here in spine and joint cases and have seen one man develop it a month or so after amputation for disease of the knee-joint. The one case in my recollection associated with glands was in a very unhealthy child with large masses of broken-down glands in both sides of the neck and both axillæ. The child was kept in the open air and fed up for several weeks in the hope that some improvement would take place, but as she was steadily getting worse it was decided to clear out the worst of the glands. One axilla was accordingly operated on, this being followed a week later by an operation on the posterior triangle through the scar of an old incision and a large number of broken-down glands were removed. In the course of doing this a large abnormal vein was cut and had to be tied but as the condition of the patient became critical under the anæsthetic the operation was not satisfactorily completed. The wound in the neck did not heal and in a month from the operation definite signs of meningitis showed themselves. The patient was taken home soon after and I have not been able to trace her. It is absurd to attempt to argue from one case and especially one in which there was such extensive disease, but it would appear to the ordinary mind that tuberculous infection of the meninges is more likely to follow an incomplete operation such as curetting and leaving the infected capsules in the wound than one in which nearly every particle of diseased tissue is taken away. It is also just as likely that tubercle bacilli can be conveyed to the meninges as the result of the glands bursting into the cellular tissue of the neck when left to themselves, so that the occasional occurrence of tuberculous meningitis in connexion with glands becomes an additional argument for a radical and complete operation.

The conclusions to which my present experience in the operative treatment of glands of the neck has led me are that if an operation is decided on the glands should in all cases be removed with their surrounding cellular tissue and that the internal jugular vein so far from being divided and tied as a routine procedure can almost always be avoided. The drooping of the shoulder caused by the division of the spinal accessory nerve is a very real deformity, causes considerable loss of power, and if the patient is a child is a source of almost certain lateral curvature. I have seen many old cases where both the sterno-mastoid and the trapezius have atrophied and their appearance, with the longitudinal scars extending from the mastoid to the clavicle, has been a sufficient object-lesson, not only to try to treat the nerve with the greatest respect, but to put the incisions in the least visible region.

Margate.

THE SUCCESSFUL TREATMENT OF A FEW CASES OF LUPUS.

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LUPUS may be regarded as one of the most disfiguring as well as one of the most formidable diseases which a medical man is called upon to treat, and from the fact that it is classed amongst the incurable diseases has not received sufficient attention to stay its progress and transgressions or arrest its evil results. Whatever treatment is adopted the progress is slow and requires patience and perseverance both on the part of the patient and of the medical man.

The following seven cases which I have taken from my note-book extend back a period of thirteen years and in all

the cases that I have had occasion to treat very satisfactory results have been achieved in those cases where the disease has not been in a very advanced condition.

CASE 1.—The patient, a married woman, aged 42 years, had suffered from lupus for six years previously to the time that she came under my care, which was in March, 1890. The disease at this time had extended as high as the nasal bones and involved the whole portion of the nose below this point, attacking the mucous membrane of both nares, and there were various scattered foci on either cheek. Indirectly the disease affected both eyes which were more or less inflamed and watery and the sense of smell and of taste was practically gone. The treatment I adopted was the removal of the diseased tissue by excision as far as was possible, injections of Koch's lymph alternated with the injection of arsenic in the form of Fowler's solution, and wherever a suspicious-looking spot occurred it was immediately excised and the resulting wound was painted or dressed with a mixture of carbolic acid and guaiacol. The first injection of lymph produced a reaction of 101° F. and in all the patient received about 80 injections of lymph and arsenic, the highest reaction being 103°. This patient was under treatment for six months, at the end of which time I dismissed her as being quite well and she has remained so up to the present time, there being no sign of recurrence. I may mention that in this case the wounds had been scraped and burnt a considerable number of times but without any permanent good result.

CASE 2.—A boy, aged 14 years, came to me in 1890 with a considerable lupoid patch, about one and a half inches square, situated over the first metacarpal bone of the right hand. The boy was an all-round delicate subject and his parents informed me that the wound had been scraped and burnt at various intervals but to no purpose. The treatment adopted was similar to that in the previous case. The whole of the diseased tissue was excised and the wound was dressed every day with the solution of guaiacol and carbolic acid. The injections of the lymph and arsenic produced very considerable disturbance, the highest temperature reached being 104·3° F. This boy was under treatment for three months and improved very considerably from the time that the

FIG. 1.

Condition of patient before treatment.

lupoid patch was removed and the injections were commenced. He was dismissed at the end of three months perfectly well, the wound being quite healed, and his general health having much improved. There has been no recurrence of the disease since.

CASE 3.—A married woman, aged about 40 years, came to me in June, 1891, with lupus affecting the nose, the cheeks, and the entire surface of the upper lip. In this case a strong solution of cocaine was applied to the sores after the scabs had been removed until complete anæsthesia was produced; a small scalpel was taken and the disease was completely excised. A portion of both alæ was removed as the disease had penetrated most deeply at these places and the face was dressed with the same solution as in the previous cases. After excision the patient was injected continuously for about four months, no reaction being produced at the end of this time, and the highest temperature produced was 103° F. I may mention that after excision of the disease which covered a large portion of the face a very considerable wound remained, and as soon as healthy granulation tissue sprang up innumerable small skin grafts

FIG. 2.

Condition of patient after treatment.

were dotted over the surface which gradually spread and coalesced. The patient was dismissed after four and a half months' treatment. Herewith are appended reproductions of photographs showing the condition of the face before and after treatment (see Figs. 1 and 2).

CASE 4.—The patient, a man, aged 60 years, came under treatment in 1893 for lupus affecting and limited to the nose. Incision of the whole of the disease was easily done in this case and the injections of lymph and Fowler's solution were persevered in until no reaction took place and the patient was dismissed after two and a half months with the nose perfectly healed.

CASE 5.—The patient, a married woman, came under treatment in 1893 with the disease affecting the inner canthus of the left eye, extending on to the nose and implicating a small portion of the lower lid. In this case, as in the previous cases, everything had been done in the way of scraping and burning to stay the progress and to rid the patient of this much dreaded malady but to no purpose, the disease slowly but surely extending. Thorough excision was performed, keeping well clear of suspected diseased tissue, and the resulting wound was dressed with guaiacol alone. Injections of the lymph and arsenic were given as before mentioned until there was no reaction and the patient was given a clean bill of health at the end of two months. The result has been of a permanent nature up to the present time.

CASE 6.—A man, aged about 40 years, came to me in 1895 suffering from a very considerable lupoid sore situated about two inches below the mastoid process and immediately over the sterno-mastoid muscle. The patient stated that this

ulcer had been gradually extending for some years past, although he had had it cauterised and scraped on innumerable occasions, but it had never shown any tendency to heal. Excision was performed, keeping well beneath the base of the ulcer and well outside the margin of the disease. A few suspicious-looking spots situate around the main ulcer were also excised and the resulting wound was dressed every day with the guaiacol and carbolic solution. A week after the excision healthy granulation tissue made its appearance and before the termination of the injections of the lymph and arsenic the neck was perfectly and solidly healed. The patient has had no recurrence, having enjoyed very good health since.

CASE 7.—This case is interesting, since the disease was rather advanced, affecting the whole of the lower half of the nose, extending to both alæ nasi and involving in scattered patches both cheeks, attacking the lower lip, mucous membrane of both nares, and the skin covering the inferior border of the septum nasi, but not involving the septum. Complete excision of the lower portion of the nose was done, including the alæ nasi, the inferior border of the septum was skinned, and practically the whole of the diseased tissue was removed. After the operation the injections were commenced in very minute doses, as I discovered some cardiac valvular mischief which I decided might be tuberculous; there was also a suspicious spot in one eye which became very much inflamed under the influence of the injections but this inflammation ultimately disappeared. This patient had entirely lost the power of smell and the sense of taste was practically gone. A short time, however, after the removal of the diseased portion of the nose and after a few injections both smell and taste returned. The highest reaction of the lymph took place after the twelfth injection, the temperature reaching 104° F. and producing very considerable disturbance of the system in the shape of severe headache, pains in the legs, and a stiffness about the neck with vomiting of a yellowish material streaked with blood, and a very dry tongue, together with considerable disturbance of the circulatory system. However, this condition soon passed away and the injections were continued. The wound resulting from the excision rapidly healed and there was a decided improvement in the general health of the patient. This case having undergone treatment recently and the disease apparently being extirpated it was decided to wait for a few months to see whether any recurrence would take place and if not to perform a plastic operation in order to give the nose a better appearance, although the disfigurement is not at the present time objectionable. Suffice it to say that although the disease was extensive the treatment has, up to the time of writing, produced a very beneficial and satisfactory result.

It will be seen from the above cases that the main treatment consists in the injection of Koch's lymph and arsenic, combined with the thorough extirpation of the diseased tissue, and the local treatment must be adapted and varied to suit individual cases. If the wound left after excision be extensive small skin grafts will be found of great service in hastening the healing process; and I have had occasion in several cases to do plastic operations in order to restore the nose to something like its original shape and in the cases where this has been necessary the result has been fairly successful and with every satisfaction to the patient. The cases above quoted had all been treated previously by the method of scraping or burning and there was no doubt as to the diagnosis.

Newport, Mon.

A NOVEL SMALL-POX WARD.—At the meeting of the Calne (Wiltshire) district council held on Oct. 26th, the clerk was instructed to make inquiries as to the cost of a disused railway carriage which is to be utilised for the reception of small-pox cases should an outbreak occur.

ROYAL ALBERT HOSPITAL, DEVONPORT. — A public meeting of the inhabitants of Stonehouse was held at the town-hall on Nov. 5th to take steps to obtain increased support from Stonehouse for the Royal Albert Hospital. The Earl of Mount Edgcumbe, Viscount Clifden, Lord St. Levan, and several others were present. It was eventually decided to elect a committee of working men for the purpose of collecting subscriptions and also that an appeal should be made to the private residents and tradesmen of Stonehouse. It was also agreed that the ladies of the district should be invited to assist the institution.

ON SUPPURATION OF THE BURSA OVER THE TROCHANTER MAJOR AND ITS OCCASIONAL IMITATION OF HIP DISEASE.[1]

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IN THE LANCET of Oct. 8th, 1870 (p. 506), I published an essay on this subject, the opening paragraph of which I will quote.

> There have been recently under my care at the Leeds Infirmary two instances of a disease, clear and distinct in its diagnosis, treatment, and results, and yet calculated to mislead by several points in which it imitates disease of a more serious character—viz., suppuration of the bursa intervening between the trochanter major and the flat tendon of the gluteus maximus which is inserted into the fascia lata. Although the affection cannot be of very rare occurrence, and must be known to many surgeons, I cannot find any definite mention of it either in general works on surgery or in special works on joints and not even a hint as to the importance of appreciating it in the diagnosis of hip disease. The nearest approach which I can find is a notice of caries of the trochanter major, which I suspect may at times originate in the disease in question.

This was written 33 years ago. My attention to the subject has been drawn to it anew by a case recently under my care in the Leeds Infirmary and by a letter from an old house surgeon, Mr. F. W. Storry of Stroud, stating his recollection of a clinical lecture of mine on the question and asking where he could meet with the published paper as "he could not find mention of it in any text-book on the subject." Moreover, I have failed to find any adequate appreciation of the question in recent works. The case recently under my care possesses a special point of interest in the occurrence of a plate of bone in a septum separating the main bursa under the flat tendon of the gluteus from a secondary bursa over the trochanter and seems to afford a suitable pretext for reviving the points of diagnosis and practice laid down in the original essay of 1870.

A man, aged 51 years, a patient under the care of Mr. F. Laird of Ravensthorpe, was admitted into the Leeds Infirmary on June 22nd last with two discharging sinuses, one behind the trochanter, the other just below the buttock leading to a suppurating cavity extending about three inches down the back of the thigh. There were also two scars of old sinuses in front of the upper part of the femur. Though slightly lame he could walk with tolerable comfort and except for the situation of the scars and sinuses there was nothing to suggest hip disease. There was little impairment of the mobility of the joint. In this respect it differed from my first case and some others in which the femur was rigidly fixed until the muscles were relaxed under an anæsthetic, when all rigidity disappeared and the movements of the femur became smooth and almost unrestricted. The patient gave the following history. When about 14 years of age he was kicked in the region of the trochanter. He had pain for about an hour and then went on with his work. 16 years later a lump of about the size of a walnut appeared at a point about one and a half inches below the trochanter. A year later this lump was opened by Dr. A. Anderson of Mirfield, and as far as the patient recollects clear fluid was let out. After discharging for three years the sinus healed. Fifteen years later—i.e., four or five years ago—the sinus opened out again and continued discharging until his admittance under my care. Three years ago a second sinus in front of the trochanter was formed and nine months ago a third sinus below the buttock opened and was discharging pus freely on his admission. The opinion formed by the resident surgical officer and my house surgeon was that the hip was sound but that the source of the trouble was necrosis of the upper part of the femur. I suggested the probability that the case was one of diseased trochanteric bursa.

Having enlarged the sinus behind the trochanter so as to introduce the finger the interior of the bursa was reached, the floor of which was rough as if from a carious surface of the trochanter. The next step was to lay open the bursa by direct incision, dividing the gluteal aponeurosis so as to expose to touch and view the rough bony surface. This surface, to my surprise, was loose, gliding

[1] A paper read at the meeting of the Leeds and West Riding Medico-Chirurgical Society on Oct. 23rd, 1903.

over the trochanter, and it proved to be a bony plate of about the size of a shilling in the septum between the great bursa and a small subsidiary bursa in contact with the trochanter. There was no trace of any other diseased bone but a healthy fixed plate of bone could be felt extending deeply behind the trochanter. The bursal plate was excised, leaving a perfectly smooth synovial surface of the trochanter, and the division of the gluteal tendon was completed. The sinus below the buttock was enlarged and was found not to communicate with the bursa above. A counter opening for drainage was made at the lower part of the suppurating cavity. The patient returned home on the twenty-fourth day. When he called on me in the last week of September he was walking with perfect comfort and the sinuses were all but healed.

Not long after the publication of my essay in 1870 I had an interesting letter from Dr. R. Macnab of Bury St. Edmunds, now residing at Tobermory in Argyllshire, in reference to two cases evidently of the same character which he published in November of the same year in THE LANCET.[2] In one of these he maintained, in opposition to the very strongly expressed opinion of his colleagues, that the case was not hip disease, but trochanteric abscess. Fortunately, he held to his opinion. He opened the abscess freely and, as he believes, in doing so freely divided the gluteal tendon and the patient made a very rapid recovery. It may be that the affection is a rare one, as I do not remember to have seen more than two or three besides these related either in the practice of my colleagues or myself.

In further illustration of the subject I recall an instance of a girl who, having fallen heavily on the trochanter, came to the infirmary two or three weeks after the fall with a swelling in the situation of the bursa and consequent lameness. I divided the gluteal aponeurosis subcutaneously and she very rapidly recovered. This I relate from memory.

The points I would lay stress upon are these: (1) a *prima facie* suspicion of hip disease; (2) either no marked muscular rigidity and fixity of the hip-joint or, where such exist, their disappearance under an anæsthetic; (3) the absence of tenderness on pressure of the head of the femur against the acetabulum; (4) the frequency of the history of a fall on the trochanter; and (5) the effect of the flat tendon of the gluteus maximus as a factor in keeping up the diseased condition of the bursa and the importance of the division of this tendon in the surgical treatment of the disease.

In the work by Rose and Carless disease of this bursa is referred to as "not uncommonly the seat of tuberculous disease" and that "it somewhat resembles the earlier stages of hip disease." "Treatment consists of incision, scraping, and disinfecting the interior and allowing it to heal from the bottom."

The points which need to be enforced by teachers are: (1) the importance in many cases of a traumatic and non-tuberculous origin; (2) the fact that simulation of hip disease is at times so close that experienced surgeons may on first seeing the case be misled and even after mature consideration be mistaken; and (3) that above all things the division of the flat tendon of the gluteus is a dominant factor in promoting rapid cure.

Leeds.

PS.—Mr. Laird reports to me that his patient now goes about with more comfort than he has done for 30 years.

A GROUP OF CANCER CASES.

BY W. GIFFORD NASH, F.R.C.S. ENG.,
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WHILST collecting information as to the incidence of cancer in North Bedfordshire for the decennial period 1890–99 I came upon a group of three cases of cancer of the tongue in the same village in which the patients all died within a period of 16 days. As cancer of the tongue is a comparatively rare disease, only 20 cases occurring in a population of over 102,000 in ten years, I was induced to make further inquiries into these three cases and into two others which appeared to be associated with them. This series of cases is so interesting that I think it best to make it known. Early this year Mr. Kilham Roberts, medical officer of health of the Ampthill rural district, kindly made inquiries into the five cases, four of which, including the three cases of cancer of the tongue, occurred in one village and the other, marked A below, in an adjacent village.

CASE 1.—A, a man, aged 67 years, died from cancer of the rectum on May 22nd, 1892.

CASE 2.—B, a man, aged 79 years, died from cancer of the tongue on June 4th, 1893.

CASE 3.—C, a man, aged 69 years, died from cancer of the tongue on June 11th, 1893.

CASE 4.—D, a man, aged 67 years, died from cancer of the tongue on June 20th, 1893.

CASE 5.—E, a man, aged 43 years, died from cancer of the lip on Oct. 18th, 1893.

The patient A was brother-in-law to the patient D. I cannot do better than give the results of Mr. Roberts's inquiries in his own words, substituting, however, for the names of the patients the first five letters of the alphabet respectively as in the foregoing.

"First I will take the cases of C and D. The widow of C, who was an innkeeper, informs me that D and her husband were great friends and that they *frequently drank together out of a large tankard*; in fact, before their illnesses they used to meet two or three times a week. D seems to have contracted the disease first and on more than one occasion when drinking he complained of soreness under the tongue. The widow of C says that she always believed her husband caught it from D although I did not suggest any connexion. B was no friend of the men previously mentioned but occasionally as he passed through the village he stopped at the inn kept by C to have a drink and C's widow is certain that her husband and D never drank with B, but it is possible that the last mentioned drank out of a vessel which C and D had previously used. The cleansing which drinking-vessels get at the majority of village inns is not sufficient to destroy the infectivity of any disease. E lived in the same hamlet as B and came little in contact with C and D. He, however, frequented the same inn as B but did not drink out of the same vessel. Soon after his illness started he used to take his own glass to the tavern.

"I now come to what I consider the most interesting portion of the narrative. C's widow informs me that A was a bosom friend of D and also of her husband. They frequently drank together out of the same vessel both at C's inn and at each other's houses."

Bedford.

A CASE OF LUPUS OF THE FOREHEAD, THE RIGHT ARM, AND THE ELBOW TREATED BY EXCISION.

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ASSISTANT SURGEON TO THE CANCER HOSPITAL, BROMPTON, AND TO THE GORDON HOSPITAL FOR RECTAL DISEASES.

THE following are brief notes of this case.

The patient, aged 36 years, unmarried, came to the out-patient department of the Cancer Hospital, Brompton, on Oct. 15th, 1902. She was found to have a patch of lupus of about the size of a shilling which was situated above, and to the outer side of, the left eyebrow (Fig. 1). There was another patch, two and a half inches in the vertical and two inches in the transverse diameter, on the outer side of the right arm. The upper part of this was situated at about the junction of the upper and middle third of the arm. Over the front of the right elbow was a still larger patch, measuring about three inches in the transverse and two inches in the vertical diameter (Fig. 3). Treatment with a 5 per cent. solution of formalin, which I ordered to be painted on every third day, and subsequently once a fortnight, at first caused a marked improvement. However, it soon became clear that it would be useless to hope for a permanent cure from this method. I therefore admitted the patient into the hospital with a view of excising the patches. This I did, the patches on the forehead and arm being excised on April 3rd, and that on the elbow on April 17th. The latter operation left a large, raw area which was subsequently grafted by Thiersch's method on the 24th. There was a slight amount of tension in bringing the edges of the wound on the forehead together, but, as Fig. 2 shows, there is no disfigurement left except a trifling pulling upwards of the

[2] THE LANCET, Nov. 12th, 1870, p. 666.

FIG. 1.

Condition of the patient's face before operation.

FIG. 2.

Condition of the patient's face after operation.

FIG. 3.

Condition of the patient's arm before operation.

FIG. 4.

Condition of the patient's arm after operation.

left eyebrow. The edges of the wound on the arm came together without difficulty and the satisfactory manner in which the grafts have taken on the elbow is well shown in Fig. 4.

Dr. D. J. Morgan, pathologist to the hospital, examined the patches under the microscope and found them to be typical of lupus.

Though sufficient time has not elapsed to warrant the statement that recovery will be permanent, yet so far everything points in this direction, no signs of recurrence being seen seven months after the operation. About two or three months after the operation the scar tissue on the arm and at the junction of the grafts over the elbow assumed a keloid condition, which can be seen in Fig. 4, but this seems to be now subsiding and is of no consequence. This history, I think, shows conclusively that cases of lupus which are not too far advanced for operation can be satisfactorily treated by excision, for which the following advantages may be claimed over treatment by the Finsen light or x rays: (1) it is more radical; (2) it saves time; and (3) it is less expensive. In conclusion, I tender my thanks to Dr. J. T. English for kindly taking the photographs from which the accompanying illustrations have been reproduced.

Wimpole-street, W.

A CASE OF CONGENITAL HEART LESION.

BY WALTER BROADBENT, M.D. CANTAB., M.R.C.P. LOND.,
ASSISTANT PHYSICIAN, SUSSEX COUNTY HOSPITAL.

THE following case is interesting as illustrating various points in the clinical history of congenital malformation of the heart. It has some bearing also on the question of the pulmonic systolic murmur; nothing is more common than a systolic murmur over the pulmonary artery, while actual stenosis of the orifice is extremely rare.

The patient, a girl, aged 13 years, was brought by her mother for feverishness and diarrhœa. The child was well nourished but was of a deep blue colour about the cheeks and the lips; this the mother had noticed for the last seven years and had been told that it was due to congenital heart mischief. There were also patches of deep freckle-coloured staining on the cheeks. The ends of the fingers were clubbed. A chain of much enlarged glands ran down each side of the neck. The pulse was 80 and not quite regular; the artery was of normal size and easily compressible. Slight pulsation was visible in the second and third spaces, just to the left of the sternum. There was cardiac dulness in the second space for three-quarters of an inch from the sternum and down to the fifth space, where it extended from three quarters of an inch to the right of the sternum to half an inch outside the left vertical nipple line. At the apex and over the tricuspid area a first sound and loud second sound were heard and over the pulmonic area a first sound, high-pitched, blowing systolic murmur, and a much accentuated and reduplicated second sound. The systolic murmur was heard down the sternum to the fourth rib and for two inches to the left, and was not appreciably affected by her taking a deep breath. At the aortic cartilage a first sound and loud second sound were heard. Movement of the left front was not quite so good as of the right and resonance at the left apex was rather higher pitched. The air entry was diminished but there were no crepitations. She was very short of breath on the slightest exertion. The abdomen was distended and tender, especially below the umbilicus. A large gland could be felt in the left iliac region. There was also shifting dulness in the flanks and for an inch above the pubes but no fluid thrill was obtained. The temperature was 99° F. but rose to 100·5° in the evening.

When in bed the girl's face lost its blue colour and was a deep red. Her temperature varied between 98° and 101°. She was kept in bed and treated for the peritonitis. After six weeks the temperature was rarely above 99°. The abdomen was no longer distended or tender and the fluid had disappeared. The enlarged glands in the neck and abdomen were smaller. Also the systolic murmur in the pulmonic area was distinctly less loud. Two weeks later when allowed up for an hour a day she did not become blue and a month later still she was up all day and able to take more exercise than ever before without becoming at all blue, though she was soon short of breath on running. The pulse was regular, the systolic murmur was still present but much less loud and almost obliterated by deep inspiration, and the pulmonic second sound was only slightly accentuated, but still reduplicated.

The diagnosis of the heart lesion presents points of interest owing to the unexpected non-appearance of the blueness. A systolic murmur, which may be exceedingly loud, at and to the left of the pulmonic region accompanied by an accentuated second sound is often due to the lung not covering the conus arteriosus and the pulmonary artery, which will then lie against the under surface of the ribs. Vibrations are thus produced which are readily conducted by the chest wall. This murmur often varies with position and is usually considerably modified by the patient taking a deep breath and bringing a cushion of lung between the artery and the chest wall; it may indeed completely disappear even when very loud. A systolic murmur accompanied by a loud second sound, whether aortic or pulmonic, is obviously not due to stenosis, and there can have been in this case no constriction at the pulmonic orifice, since the second sound would have been obliterated and not accentuated. The systolic murmur might have been caused in this child by patency of the ductus arteriosus and the accentuated and reduplicated second sound by a partial blocking of the pulmonary blood stream when the aortic blood entered the pulmonary artery, but a patent ductus arteriosus could not alone have produced the blueness, though its obliteration during the quiet of the long rest in bed would have explained the practical disappearance of the murmur. Or narrowing of the pulmonary artery at the point of entrance of the ductus arteriosus might have caused the systolic murmur with accentuated second sound and the blueness from deficient aeration of the blood, but rest in bed could not have had any curative effect and such a narrowing is exceedingly rare.

Patency of the foramen ovale causes no murmur, but this or pulmonic valvular stenosis is present in apparently all congenital cardiac defects accompanied by cyanosis. Patent foramen ovale may cause no symptoms at all until some disease of the lungs, such as bronchitis, raises the pressure on the right side of the heart and then cyanosis occurs unexpectedly early because blood from the right auricle flows into the left. This seems to explain the above case. When first seen the child had a dilated right ventricle, as evidenced by the cardiac dulness to the right of the lower sternum. Either old damage to the upper lobe of the left lung or enlarged mediastinal glands had caused obstruction to the pulmonary circulation. The prolonged rest in bed enabled the right ventricle to recover and to take the pressure off the right auricle, so that blood ceased to pass into the left auricle and perhaps the foramen ovale became smaller. The murmur may have been due to the want of expansion of the left lung uncovering the pulmonary artery or possibly there was some patency of the ductus arteriosus as well as of the foramen ovale.

Brighton.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF ACUTE FULMINATING GLAUCOMA ENDING IN TOTAL BLINDNESS IN 18 HOURS AFTER ONSET AND OCCURRING DURING THE COURSE OF SEVERE SYPHILIS.

BY THE LATE ARTHUR T. WHITE, M.R.C.S. ENG.,
LATE PRINCIPAL MEDICAL OFFICER TO THE NILE RESERVOIR HOSPITAL, ASSOUAN, UPPER EGYPT.

THE following case of acute glaucoma ending in absolute blindness within 18 hours of onset is interesting, partly from the fact that fulminating glaucoma is not a common condition; partly from the absence, apart from secondary syphilis of a severe nature, of a cause; and partly from the circumstances that rendered the treatment difficult. At the

moment, having no access to a reference library, I speak with diffidence, but so far as I have read and have been able to discover from the books at hand syphilis is not mentioned as a direct cause of glaucoma except by way of iritis.

The patient, an Italian labourer, aged 36 years, was admitted into the Nile Reservoir Hospital at Assouan on Feb. 2nd, 1901. I had been told that a man was lying ill at the works in one of Messrs. Aird's barracks and that he was vomiting and in great pain. When I saw him in the room he was obviously suffering from acute purulent conjunctivitis of both eyes; he was rolling about with pain in his supra-orbital and right temporal regions, and from time to time he vomited spasmodically a watery bile-stained fluid. I was told by his comrades that he began to vomit and to complain of the severity of the pain about 18 hours before I was called to him, though "for some time" he had been ailing and not at work, partly from his "bad eyes" and partly from syphilis from which he was then suffering.

On examination at the hospital the patient was found to be literally covered with secondary macular and papular syphilides. He was very anæmic and looked ill and thin and it was elicited that he had been living for some time past on the charity of other Italian workmen and had been getting very little to eat. He complained of intense pain over the brow and in the right temple and on more careful examination he was found to have the symptoms of acute glaucoma of the right eye which was of stony hardness with an anæsthetic and ground glass cornea, injected episcleral vessels, and absolutely no perception of light. It was very difficult to examine the eye owing to the severe purulent conjunctivitis with its accompanying chemosis. The tension in the left eye was normal. According to his own account his vision had been good, apart from a certain amount of subacute conjunctivitis, till about 24 hours before when he began to get a fogged vision which was rapidly followed by the severe browache and spasmodic vomiting and a rapid increase in the conjunctivitis. Owing to the purulent inflammation of his conjunctiva any operative measure such as iridectomy or sclerotomy seemed to me to be impossible and I had to be content with the administration of morphia hypodermically, cocaine and eserine instillation, and hot applications locally, with at the same time active anti-syphilitic treatment by free mercurial inunction, a generous diet, and attention to his general miserable condition. There was no remission or improvement in vision, though the eye gradually became less painful and somewhat less tense and the cornea cleared slightly: when he left the hospital the affected eye was stone blind. Beyond the conjunctivitis nothing could be detected in the remaining sound eye as regards its tension, its visual acuity, or the condition of the fundus.

The previous history of the case showed that in December, 1900, the man had been an in-patient of the hospital suffering from phagedæna of the penis grafted on a Hunterian chancre under a phimotic prepuce. He was much debilitated, neglected, and in a foul condition on admission. However, with a prompt opening up of the phagedænic area, the application of pure phenol after removal of the sloughs, and continuous immersion in boric acid hip baths he rapidly improved though he lost much of his glans penis. When discharged from the hospital he was warned to attend for a regular course of treatment but was not seen again till he was admitted for the glaucomatous attack.

It is difficult to say what was the cause of this violent glaucoma which after a period of 24 hours ended in stone-blindness. The patient was very definite in his statement that he had never had any eye trouble beyond attacks of the common Egyptian ophthalmia and no history of iritis or atropine instillation was to be had, and except for the severe secondary syphilis I know of no cause. Glaucoma has been known to occur in eyes affected with hæmorrhagic retinitis and this retinitis has been known to occur in secondary syphilis, but against this as a cause must be set the fact that the patient was not himself aware of any previous loss of vision. The rapidity of the destruction of sight and the fact that there was no remission, complicated with the pus in the conjunctiva, rendered it a hopeless case from the onset, while the severity of the symptoms may to an extent be probably attributed to the cachexia of want and disease.

There is another point to which this case draws attention. It appears that this man had been living on the charity of the other Italian workmen employed on the dam by Messrs. Aird as he was without money, having been out of work. Previously to his first admission in December he had been for some time out of work and owing to the nature of his malady had not been drawing sick pay from the sick fund jointly provided by Messrs. Aird and the men, which was by its rules not available for persons suffering from venereal disease. Moreover, according to the strict rule of the hospital treatment for such cases was supposed to be paid for by the men and not provided gratis, and this was the reason the man gave for not attending for further treatment of the syphilis. The result of all these conditions was that he got neither proper food nor treatment, and such a case to my mind goes a long way to support the contention which has been brought forward so often at continental congresses, that it is really in the end false economy (speaking in the wider sense of the relations of the individual to the general cosmos) to legislate either privately or publicly in a repressive and hostile sense as regards venereal disease. It is true that these diseases are contracted as the result of self-indulgence, but there is a great deal to be said for those who contend that it results in economic waste to put undue obstacles in the way of free treatment for these persons, who deserve attention not as criminals but as persons suffering from a disease which is not only highly contagious but in one of its forms may be transmitted to offspring. At present in England this view is not popular either with the profession or with those whose work brings them in contact with this question, but there is a good deal to be said for the proposition that when the Magdalene of the lock hospital and the blennorrhœic of the out-patient room are treated by pious surgeons and mission ladies less as criminals and more as sick persons a decided step will be taken on what many think the more sound and humane way.

Assiout.

NOTE ON A CASE OF TETANUS; INJECTIONS OF ANTITETANIC SERUM; RECOVERY.

By DANIEL MOWAT, M.D. EDIN.,
CHIEF CLINICAL ASSISTANT, ROYAL LONDON OPHTHALMIC HOSPITAL.

A WOMAN, aged 40 years, the wife of a farrier, whilst walking across the floor of her husband's forge trod upon a block of wood from which a large nail protruded about one and three-quarter inches. She was wearing soft felt shoes and the nail penetrated into the ball of the left great toe about one inch. I saw her on Sept. 3rd, 1903, and, judging by the pain on moving the great toe, the nail had penetrated the metatarso-phalangeal joint. The leg was very painful and somewhat swollen; the wound was septic and inflamed, movement of the toe causing great pain. Antiseptic dressings were applied to the wound and a mixture of chloral hydrate, morphine, and bromide of potassium was given to relieve pain and to induce sleep.

On Sept. 4th the patient complained of a feeling of stiffness in the muscles of the jaws and pain up the back. The pain in the toe was still severe but she had slept a few hours after taking the medicine. During the next few days the wound seemed to be clean and there was little pain on movement. The feeling of stiffness in the jaws had nearly passed away. On the 9th and 10th the patient sat up for some hours, saw a few friends, and did household work contrary to orders, as I somewhat feared tetanus setting in. In spite of the medicine she did not sleep on the 10th and on the following day there was well-marked rigidity of the masseters and also of the muscles of the back, the abdomen, and the thighs. The jaws could scarcely be separated. On the following day the spasms were well marked and opisthotonos was present. The pain was very great and the patient was unable to speak. Antitetanic serum was procured from Messrs. Allen and Hanbury and ten cubic centimetres were injected into the abdominal walls. The patient had a quieter night but the spasms were very frequent. On the 13th another ten cubic centimetres of serum were injected, after which the spasms became less frequent. A red rash developed for some distance over the abdominal walls where the injections had taken place. On the 14th the patient was quieter but begged for the injection of serum as she experienced great relief after half an hour. As she was much better on the 15th no injection was given. On the 16th she was not so well, the jaws were firmly clenched, and the abdominal muscles were very rigid. Another ten cubic centimetres of antitetanic serum were injected. On the 17th and 18th the various muscles were still rigid but less painful. She was fed during the last few days through the tube of an ordinary feeding bottle passed

between the gums, the patient having previously had her artificial teeth removed. On the 20th and 21st ten cubic centimetres of antitetanic serum were injected on each day, the patient's condition improving after each injection. In all, nine injections of ten cubic centimetres were given. From this time her recovery was uninterrupted, with the exception of the adductors of the thigh, which remained in a state of tonic spasm for several days after the other muscles had become quiescent.

This case is of interest for several reasons. First, the apparent rapid onset of tetanus, within 36 hours after the injury, and then the disappearance of the symptoms; secondly, after the excitement of seeing friends, the sudden reappearance of tetanus on the ninth day; and thirdly, how the spasms yielded to the antitetanic serum and how on Sept. 15th when no injection was given the spasms were very severe. I may say that this is the only case of tetanus in which I have had an opportunity of using the serum. The few other cases which I have attended previously to the introduction of the serum all terminated fatally.

Amhurst-park, Stamford-hill, N.

A CASE OF CHONDROMA ATTACHED TO THE SUBMAXILLARY SALIVARY GLAND.

BY H. J. ILOTT, M.D. ABERD., M.R.C.S. ENG.,
MEDICAL OFFICER, BROMLEY (KENT) COTTAGE HOSPITAL.

A TALL, rather anæmic girl, 16 years of age, was admitted into Bromley (Kent) Cottage Hospital on July 28th. She had a hard, moveable, nodular growth in the right submaxillary region. It had been slowly developing for the past seven or eight years. It was then of about the size of a large walnut. The growth was removed by me on August 4th. It was situated beneath the deep fascia, was encapsuled, and by its base was adherent to the submaxillary salivary gland. On section the growth was firm and white, with a few small yellowish-brown patches of somewhat softer consistence. It was sent to the Clinical Research Association for examination and Mr. J. H. Targett reported as follows: "This tumour is a chondroma of the submaxillary salivary gland. It is well encapsuled and shows no signs of malignancy. There is much imperfect gland-tissue mixed with the cartilage. It is now usually regarded as an endothelioma." The wound healed quickly and the patient was discharged on August 13th. These growths have been noticed as occurring in connexion with the parotid glands, but as they are rare and I have never heard of one in connexion with the submaxillary gland I think the case is worth recording.

Bromley, Kent.

SEAMEN'S HOSPITAL, CARDIFF.—The new Seamen's Hospital at Cardiff is now approaching completion. The total cost will be about £35,000, towards which about £17,000 have been promised.

THE NATIONAL ASSOCIATION FOR THE PREVENTION OF CONSUMPTION.—A meeting of the council of the association was held at 13, Hanover-square, W., on Nov. 9th, Sir William Broadbent being in the chair. Previously to holding the council meeting a preliminary meeting of the general committee for making arrangements for the Paris Congress in 1904 was held. At this meeting Sir William Broadbent was unanimously elected chairman of the general committee and Dr. J. J. Perkins honorary secretary. An executive committee was also formed, consisting of 12 names. It was decided to invite members of the staffs of the various hospitals for diseases of the chest to join the general committee, as well as several influential laymen who are interested in the subject of consumption. It was also resolved that the medical officers of health from the counties as well as from the chief towns should be invited. The secretary read a *précis* of the replies from the medical officers of health of the metropolitan boroughs with regard to spitting in public-houses. It was resolved that the matter should be postponed and that no further action should be taken for the present, as the whole subject was shortly to be considered by the Incorporated Society of Medical Officers of Health. The secretary reported that branches of the association had been formed at the Aberyswyth University and at Adelaide, South Australia.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum allorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

NORWOOD COTTAGE HOSPITAL.

A CASE OF REMOVAL OF THE APPENDIX WITH CONCRETION; RECOVERY.

(Under the care of Dr. JOHN H. GALTON.)

A MAN, aged 23 years, was admitted into the Norwood Cottage Hospital on May 6th, 1903. The family history was good. In 1896 he had an attack of pain in the right iliac region and was in bed for six weeks. In 1898 he again had an acute attack and was then taken to St. Bartholomew's Hospital. On Dec. 15th he ate half a pound of raw chestnuts and on the 16th he was doubled up with severe pain which was accompanied by semi-collapse and cold sweats. His temperature was 99° F. and his pulse was 100. The abdomen was slightly full and rigid and did not move on inspiration; it was tender everywhere, especially over the right iliac fossa. There was rather more resistance at the right iliac fossa but nothing could be felt. The percussion note was resonant in both iliac fossæ. On the 18th he was seen by the surgeon who thought that there were no indications for immediate operation. On the 22nd in the right iliac fossa above Poupart's ligament there was a distinct swelling in the region of the appendix. On Jan. 11th, 1899, he was quite convalescent and was taken into a surgical ward for the purpose of examining the appendix, and on the 21st he was discharged without undergoing an operation. (These notes were copied by the patient from the bed card at St. Bartholomew's Hospital). After his discharge he went to Folkestone and while there had a slight return of pain. During the last three years he had had several attacks of pain in the same region but had never been laid up. On examination there was no dulness on percussion over the right iliac fossa, but two and a half inches above Poupart's ligament and parallel with it a line of hard tissue one inch long could be rolled under the finger which on examination at another time was found to be in a different position one inch away from the former, and just over the middle of Poupart's ligament was a small hard swelling of the size of a hazel nut.

On May 7th, at 11.30 A.M., chloroform was administered by Mr. A. Scott Turner by means of Junker's apparatus and Dr. C. E. Michael assisted at the operation. The abdomen was opened by an incision four inches long and two and a half inches above Poupart's ligament and the healthy omentum disclosed was found not to be adherent. A nodule of the size of the tip of the index finger pointing upwards represented the appendix which was thickened, one and a half inches long, and firmly adherent to the caput coli. The adhesions were divided with a sharp dissector and one ligature of sterilised silk was applied to a bleeding vessel. The appendix was tied half an inch from the colon, the free end was touched with pure carbolic acid, and the peritoneal edges were brought together with a suture of sterilised silk. The appendix showed hypertrophied walls and a very hard stercolith one inch long, there being at the free end one and a half turns as of a corkscrew, as if the hypertrophied appendix had been trying hard to get rid of it. The abdominal wound was closed with four deep silver-wire sutures including the peritoneum and seven superficial horsehair ones and was dressed with sal alembroth gauze, cotton-wool, and spica bandage.

After the operation the pulse was 72 and good. On May 8th the pulse was 84 and the temperature was 98·4°. The patient complained of pain at the upper part of the abdomen. The progress continued to be good. On the 11th he was given half an ounce of castor oil at 3 P.M. and an enema of warm water at 8 P.M. On the 12th, no action of the bowels having taken place, white mixture was given every four hours. On the 14th the bowels acted. All deep

sutures were removed. The wound had healed except half an inch in the middle. On the 15th the pulse was 80 and the temperature was 97·8°. The unhealed middle portion of the wound was discharging dirty pus. The suture wounds were angry-looking so hot boric acid fomentations were ordered. On the 17th the wound was looking quite healthy. On the 21st it had quite healed and was free from discharge and the scar was firm and sound. On June 3rd the patient was discharged cured.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The Anæmias of Infancy.

A MEETING of this society was held on Nov. 11th, Mr. ALFRED WILLETT, the President, being in the chair.

Dr. CLIVE RIVIERE read a paper on the Anæmias of Infancy, which will be published in full in an early issue of THE LANCET. He adduced facts to show that anæmia of slight grade was common in infancy, but cases of more severe anæmia also presented themselves and were commonly described under the name "anæmia splenica infantum." These cases presented certain definite characteristics—enlarged spleen and liver, peculiar blood changes, nucleated red cells, a fairly large percentage of myelocytes, and often a leucocytosis. On account of these peculiar features such cases had been generally claimed as a distinct group, but it was probably more correct to suppose that they were in no way specific, but that all anæmias of infancy would show such changes if sufficiently severe, they being due to the peculiarities of the infantile blood and not to any specific causation.

Dr. J. H. DRYSDALE said that he, in conjunction with Dr. J. H. Thursfield, had during the past ten years examined the blood from cases of splenic anæmia in infants. Without controverting Dr. Riviere's facts he still could not agree that anæmia from any cause in infancy might give rise to "splenic anæmia." He thought that the primary disease must be of a severe type. He did not think that either rickets or congenital syphilis was the direct cause of the disease since both were common conditions while "splenic anæmia" was rare, though both these diseases were seen in conjunction with splenic anæmia and pseudo-leukæmia. He believed that the disease was due to some disturbance in the intestinal tract although gastro-intestinal catarrh was not present nearly so frequently in his own cases as in those quoted by Dr. Riviere. If the disease was due to this factor then careful feeding and diet should lead to rapid recovery which was not, however, the case. He then quoted two cases in which the blood examination presented an entirely different type from the cases quoted by Dr. Riviere, proving that all the anæmias could not be regarded merely as different stages of the same disease. It was important to remember, first, that the red cells and the white cells in the blood varied independently of one another, and that the diminution of the red cells might be of a slight degree, while the changes in the leucocytes might be very marked; and, secondly, that the changes which were found in blood in disease were symptomatic and not the disease itself. The clinical features of the disease were pallor, hæmorrhages, bleeding from the nose, the gums, and the rectum, and irregular rises of temperature. The duration of the disease was long, the average period in his series of cases being five and a half months. The spleen was enlarged and the liver was apparently enlarged (though after death on being weighed there was but little increase in weight). The superficial glands were not enlarged, whilst the mesenteric glands were enlarged. Treatment was usually unsuccessful whatever measures were tried. He thought that if rickets or improper feeding played any important part in the etiology then the cases should do well, but this was not so. The primary cause of the disease was still obscure.

Dr. F. A. BAINBRIDGE criticised the view advanced by Dr. Riviere that splenic anæmia and pernicious anæmia were both due to the absorption of toxin from the intestinal tract, in splenic anæmia the toxin passed into the blood stream, whereas in pernicious anæmia it was arrested in the liver. He pointed out that in splenic anæmia there was no free iron in the liver and also that in whatever portion of the body destruction of red cells took place the free iron was stored in the liver. He questioned whether there was any evidence for Dr. Riviere's statement that toxins absorbed from the intestine were excreted in the bile and so returned again to the intestine.

Mr. L. S. DUDGEON said that he considered the presence of the mast cells important in the diagnosis of a myelogenetic leukæmia, and that he had never seen an increase of mast cells in the blood of infants who appeared clinically to be cases of leukæmia. The blood had been of the chlorotic type with numerous nucleated red cells. The blood had been typical of a secondary anæmia. He had seen most of these cases improve under arsenic and mercury and considered that many were due either to congenital syphilis or to intestinal infection.

Dr. S. VERE PEARSON said that his experience with regard to the occurrence of hæmorrhage in splenic anæmia had been different from Dr. Riviere's for in four out of five of his cases there were epistaxis, purpura, and bleeding from ulcers on the scalp. He had seen twins both affected by the same disease. He thought that Dr. Riviere had not proved the connexion between the simple anæmia and the splenic anæmia, since he had shown no intermediate cases between the two conditions. He did not think that gastro-intestinal disturbance was an important factor in the etiology of the disease, since such disturbances were common, while splenic anæmia was rare. He agreed with Dr. Riviere that there was no true leukæmia in infants.

Dr. A. E. RUSSELL quoted the case of an infant, aged 12 months, who had a greatly enlarged spleen. The blood count showed a very large number of nucleated red cells. The child rapidly improved under inunctions of mercury though there was but indefinite evidence of syphilis.

Dr. E. P. BAUMANN said that during the past two years he had had the opportunity of investigating cases of anæmia admitted to the Children's Hospital, Great Ormond-street. Many cases showed changes characteristic of secondary anæmia; these differed entirely from cases of splenic anæmia for from the beginning the blood changes were characteristic of this condition. The presence of myelocytes and nucleated red corpuscles was not the characteristic feature but he considered the polymorphous character of the blood to be of the most diagnostic value. In addition to the presence of abnormal cells, both finely granular and coarsely granular, there were polychromatophile degeneration and extreme poikilocytosis and marked variation in the size and shape of the red corpuscles. This polymorphous character of the blood he had never been able to demonstrate in the blood of secondary anæmia. He had never been able to demonstrate the peculiar polymorphous change in cases of congenital syphilis although the blood had presented marked chlorotic characters, a diminished number of red corpuscles, poikilocytosis, nucleated red corpuscles, and some myelocytes being present. In every case of splenic anæmia examined the typical polymorphous character of the blood was present from the first and continued practically unchanged throughout the disease.

Dr. RIVIERE replied.

MEDICAL SOCIETY OF LONDON.

Exhibition of Cases.

A MEETING of this society was held on Nov. 9th, Dr. F. DE HAVILLAND HALL, the President, being in the chair.

Dr. W. ESSEX WYNTER exhibited a case of Addison's Disease occurring in a married woman, aged 40 years. Pigmentation had been noticed for two summers (about 15 months), during which time she had been growing weaker and had suffered from syncopal attacks. Wasting had been noticed for nine months. There were now general bronzing of the skin, intensified in the face, hands, and flexures of the joints, definite pigmentation of the mucous membrane of the mouth and tongue, and marked circulatory debility.

Dr. WYNTER also exhibited a case of Spondylitis Deformans ("poker-back").—The PRESIDENT remarked that the case differed somewhat from those which he had previously seen in which there had been more marked deformity of the spinal column.—Dr. F. J. POYNTON also agreed that there were generally much more thickening and distortion of the spinal column. One case which he had seen improved under massage and iodide of potassium.—Dr. ALEXANDER MORISON referred to a case in which there was a history of gonorrhœa.—Dr. F. PARKES WEBER

thought that the case was a typical one of spondylitis deformans. Post mortem specimens generally exhibited bone formations in the vertebral ligaments.—Dr. WYNTER, in replying, said that the patient had been lying down for a long time and perhaps this explained the straightness of the back.

Dr. POYNTON showed a case of Bilateral Facial Paralysis occurring in a boy, aged five years, who was quite healthy until he had a fall downstairs in December, 1902. He was not unconscious or apparently much shaken by this fall. While in bed with the illness after the injury he developed difficulty in speaking and lost all expression in his face and could not close his eyes in sleep. There was now bilateral facial paralysis of an infranuclear type with evidence of some damage to the left auditory nerve. There were no symptoms pointing to diphtherial paralysis or to syphilis.

Dr. H. LEWIS JONES and Mr. C. S. KINGSTON exhibited three cases of Rodent Ulcer. Dr. Jones explained that they were shown for the purpose of eliciting opinions as to the best method of conducting x-ray treatment in such cases. There could no longer be any question of the efficacy of the treatment. The effect produced by the x rays could continue after suspension of treatment, as in the case of a man he referred to. Dr. Jones was inclined to think that the efficacy of the x rays in rodent ulcer was due to their special destructive effects on the sebaceous glands in which structures rodent ulcer started. X ray dermatitis might be explained in the same way by the effects upon the sebaceous glands. The less effect in superficial epithelioma might be explained by the latter not starting in the sebaceous glands.—Mr. Kingston explained the method of the applications. It was remarkable that the resulting scar became quite level with the skin. The value of general as well as of local treatment was referred to. As regards superficial carcinoma x-ray treatment was also efficacious, especially in the relief of pain.

Mr. L. V. CARGILL exhibited a case of Rodent Ulcer treated by Radium Bromide. The patient, a man, aged 62 years, had had 21 applications of from 5 to 10 minutes' duration. The disease, which had existed seven years, had been operated on twice previously unsuccessfully. Radium was of value as needing no elaborate apparatus. The relative value of the x rays and radium had yet to be settled but there was no doubt as to the efficacy of the latter in this case.

Dr. S. E. DORE exhibited four cases of Lupus Vulgaris treated by the Finsen Light and the X Rays. The first case was that of a woman, aged 40 years, the disease being mixed with troublesome scar tissue and the 271 applications of the Finsen light had been very successful. The second case had been treated by x rays and the Finsen light combined. The third and fourth cases had been treated by the light only. All showed very satisfactory results. The value of successive and continuous applications of the Finsen light, especially to superficial nodules without allowing healing to take place between the sittings, and the usual absence of unsightly scarring afterwards were points in favour of the Finsen light. On the other hand, the x rays seemed advantageous when large areas and deep seated lesions had to be dealt with. Nevertheless, the x rays were liable to produce telangiectasis.

Dr. BERTRAND DAWSON exhibited an Abdominal Case for diagnosis in a man, aged 28 years, who had first noticed a lump in the right side of the abdomen three years before when he was serving in South Africa.—Mr. V. W. LOWE had seen the case previously and he thought the long history was against the diagnosis of sarcoma and suggested the possibility of hydatid tumour.—Dr. WYNTER, Dr. SEYMOUR TAYLOR, and Dr H. A. CALEY concurred in the possibility of this view and Dr. DAWSON replied.

Dr. DAWSON also exhibited a case of Carcinoma of the Stomach.

Mr. W. G. SPENCER communicated a case of Scirrhus of the Tongue which had been brought before the society for three consecutive years, showing the efficacy of treatment. The glands in the neck were becoming softer and were disappearing.

Dr. PARKES WEBER and Mr. R. LAKE exhibited a case of Epithelioma of the Lower Portion of the Pharynx in a woman, aged 31 years, who was affected with pulmonary tuberculosis. In June, 1901, she spat up some blood but the difficulty of swallowing had only come on six months ago. Microscopically the pharyngeal growth presented the typical structure of epithelioma.

Dr. C. S. DE SEGUNDO exhibited a woman, aged 25 years, who presented Swellings in the Subcrural Spaces which had developed in the last 12 months.—Mr. SPENCER suggested that these swellings might be chronic rheumatic thickenings of the synovial membrane, but Dr. DE SEGUNDO could not concur in this view, suggesting that they might be of tuberculous or syphilitic origin.

Dr. B. E. POTTER showed a case of Congenital Absence of the Right Hand in a male child, aged two years. The mother of the child mentioned that four months before his birth she had been much frightened by seeing a dog attack one of her children whose hand she thought was bitten.—Mr. SPENCER referred to a similar case in which he had found the remains of an amniotic band across the wrist.

OBSTETRICAL SOCIETY OF LONDON.

Acute Contagious Pemphigus in the Newly Born.—Ovarian Cyst.—Exhibition of Specimens.

A MEETING of this society was held on Nov. 4th, Dr. EDWARD MALINS, the President, being in the chair.

Dr. GEORGE J. MAGUIRE read a paper on Acute Contagious Pemphigus in the Newly Born. Authorities were quoted to show that infantile pemphigus other than syphilitic, though known to occur, was rare, especially in this country. After stating the constitution of the charity in the practice of which the epidemic dealt with occurred, and after giving data as to the carrying on of the work up to the time of the outbreak of this epidemic, the period over which it extended was recorded, the number of deliveries during that period being 20, the number of infants affected with pemphigus being 18, and the number of deaths eight. The clinical symptoms in the first case seen were described, followed by detailed notes of the history and symptoms in each case, with the result, and an abstract in tabular form was appended. It was concluded that the cases arose from a common contagion of septic origin (its source, however, being unknown) conveyed from case to case by a certain midwife, the probable method of conveyance being given. The contagiousness of the affection was proved and the number of cases infected from each infant was given. After quoting a paper by Bulloch in the *British Journal of Dermatology* in 1896, which contained an account of the micro-organisms found in previous epidemics of pemphigus neonatorum, there was given the result of the bacteriological examination of serum from two of the cases, the pathogenic germ isolated being the staphylococcus pyogenes aureus. The incubation period was then inquired into and an endeavour was made to fix the time required—(1) for the development of a bulla; and (2) for the earliest signs of the skin lesion. This last was then described in detail, the method of formation and spread of the bullæ being given, with the appearance presented after their rupture, and their course—(1) in the recovering cases; and (2) in the fatal cases—followed by a short account of the microscopic appearances of sections of an old and a new bulla. The additional symptoms in the fatal cases were detailed, the condition of the umbilicus and abdomen being particularly noticed. It was concluded that these symptoms were those of an acute toxæmia, the infection having gained entrance through the unhealed umbilicus. Notes of the necropsies on Cases 10 and 11 were given, after which the therapeutic measures were discussed and a suggested line of treatment in future cases was laid down. The conclusions arrived at were: 1. This epidemic was one of the comparatively rare disease pemphigus acutus neonatorum. 2. It was due to infection by a pathogenic micro-organism, the staphylococcus pyogenes aureus, conveyed from case to case by a certain midwife. 3. That although it appeared chiefly in the newly born, and was fatal to these only, it also attacked older children and adults. 4. It was characterised by a bullous eruption on the skin, variable in distribution and extent, the specific micro organism being found in the contents of the vesicles. 5. In many of the cases no symptoms other than this eruption were manifested, but a certain number of cases showed grave symptoms of a general infection and invariably ended fatally. 6. The point at which the systemic invasion began in these fatal cases was the unhealed umbilical scar. 7. Treatment to all appearances had little or no effect upon the course and duration of the disease whatever the result.—Dr. C. J. CULLINGWORTH said that one President of the society after another had expressed his regret that so few papers

were presented dealing with the diseases of the newly born. He therefore thought that Dr. Maguire's paper should be specially welcomed as helping to vindicate the society's claim to embrace within its scope the abnormalities and diseases of children. Apart from that, however, the paper was in itself an admirable one and showed a capacity not only for careful and accurate observation but for making clear and painstaking records of such observations. It was interesting to note that in a considerable number of the cases the disease had been communicated to older children and to adults. This fact threw some light upon a case of acute pemphigus which he had himself seen in an adult and which at the time puzzled him extremely. With regard to the special micro-organism that had been discovered in connexion with two of the cases in this remarkable epidemic, he could scarcely bring himself to believe that so widely diffused a microbe as the staphylococcus pyogenes aureus ought to be regarded as the specific source of this particular infection. He was not a bacteriologist and therefore could not speak with authority on this point, but he felt disposed to suggest that on further investigation some infective micro-organism of a more distinctive character would probably be found to be associated with this disorder.—Dr. T. VINCENT DICKINSON said that a similar epidemic occurred at the Foundling Hospital at Parma in 1901-02 and was described by Dr. Pasini at great length in the *Giornale Italiano delle Malattie Veneree delle Pelle* of this current year. The clinical histories of 14 cases were given, most of which ended fatally; examination of the blood showed a marked leucocytosis, especially in mononuclear cells, pointing either to altered chemiotaxis or to efforts of defence on the part of the subject against pathogenic agents. The cases pointed indubitably to the conclusion that a specific organism was the exciting cause and that there was no relation between this disease and syphilis. Dr. Dickinson thought that the primary mode of infection was not through the umbilical scar which only became infected later through the discharge from the bullæ, general systemic infection with a fatal result then occurring, as shown by Dr. Maguire's cases. The fact that adults became infected also pointed to the same conclusion.—Dr. J. M. H. MACLEOD, after thanking Dr. Routh for giving him the opportunity of being present to hear Dr. Maguire's lucid and scientific report, referred to a few points which had been raised in the paper. He remarked on the increasing rarity of this affection at the present time compared with its prevalence a few years ago, and believed this to be due to the better antiseptic precautions taken in lying-in institutions and elsewhere. He agreed with Dr. Maguire that the disease was due to infection by a pathogenic micro-organism, but disputed his conclusion that the specific microbe was the staphylococcus pyogenes aureus, believing it to be a streptococcic infection due to the streptococcus pyogenes or a variant of it. He pointed out that unless special methods were employed in taking cultivations from the skin, and especially from the contents of vesicles or bullæ, cultures of staphylococci would invariably be obtained. He described a method devised by Sabouraud in Paris, in which the contents of the bullæ were aspirated into a sterile pipette containing ascitic fluid after sterilising the skin and the pipette was then incubated for 48 hours at 37° C. By this means Dr. MacLeod had obtained pure culture of streptococci in a fatal case of pemphigus neonatorum. He referred to the relation of this disease to impetigo contagiosa and reminded the members that the initial lesion of the latter disease was a vesicle and that the infective agent was now generally believed to be the streptococcus pyogenes and not the staphylococcus, as was once thought. He noted the occasional occurrence of impetigo contagiosa in the same family as pemphigus neonatorum. He referred also to the close relationship of the disease to the acute pemphigus of adults. With reference to Dr. Maguire's notes on the umbilicus as the seat of infection, Dr. MacLeod believed that in a large number of cases the inoculation did take place there but that it might occur on any abrasion of the skin and mentioned a case in which the mucosa of the lip was the site of infection. With regard to differential diagnosis, he believed that there was no great difficulty in distinguishing this affection from the so-called "congenital syphilitic pemphigus" for various reasons which he detailed, but he considered that it might more readily be confused with the rarer bullous affection known as "epidermolysis bullosa hereditaria," the pathology of which was absolutely different in that it was not due to a microbe but was essentially a condition of excessive vulnerability of the skin in which even slight traumatism resulted in the formation of flaccid bullæ and was probably caused by an instability of the vaso-motor system of the skin analogous to that which is present in factitious urticaria.—Dr. P. HORROCKS thought there could be no doubt that pemphigus, as well as many other skin lesions and illnesses, was commoner in the newly born in former times than at present owing to the want of surgical asepsis on the part of the attendants. He considered the paper a scientific contribution to the elucidation of the cause of a rare condition but he did not think that the staphylococcus was the culprit, neither did he think with Dr. MacLeod that it was the streptococcus, because both these microbes were so prevalent that it was exceedingly difficult to get rid of them from one's hands. After as thorough a sterilisation as possible the staphylococcus albus could be found under the nails. Hence he thought that pemphigus neonatorum would be common instead of rare if either of these microbes was the cause of it. Probably it was due to some other microbe or else if due to one or both of the above-mentioned germs there must be another factor necessary, which other factor was rarely present. He asked if any of the mothers were ill at all and if they nursed the infants.—Dr. MAGUIRE, in reply, said that the disease was one confined to the skin in the majority of cases and was without symptoms of systemic invasion; where this took place the umbilical scar was always previously involved and the cases ended fatally. It seemed fair, therefore, to conclude that this was the channel by which a simple skin disease became a grave general disorder. Replying to Dr. Horrocks, he said that all the mothers were healthy, with one exception, nor had this woman any grave disease. All the infants were breast-fed.

Dr. W. H. B. BROOK (Lincoln) showed an Ovarian Cyst which had made its way between both broad ligaments, separating the peritoneum from the uterus, the cæcum, and the sigmoid flexure of the colon. The history of the case was as follows. A single woman, aged 56 years, was admitted into the Lincoln County Hospital on April 6th, 1903, for an abdominal tumour which she had noticed since the previous December. She presented all the signs of an ovarian cystoma. The uterus was freely moveable and appeared to be normal. On April 11th the abdomen was opened and the tumour was removed; it proved to be an ovarian cystoma, one large cyst containing 23 pints of thick ovarian fluid with two small loculi. The base of the cyst, which appeared to have originated in the left ovary, extended between the layers of the broad ligaments from one side of the pelvis to the other, passing behind and above the uterus which was buried in the cyst. The peritoneum was stripped off the sigmoid and the cæcum, so that the cyst wall was in direct relation with these, two large layers of vessels spreading over its surface from the meso-sigmoid and meso-cæcum. The vermiform appendix lay on the upper part of the cyst. As it was impossible to separate the base of the cyst its wall was cut through and the remaining portion was sutured to the abdominal wound and drained. The fundus of the uterus and a subperitoneal fibroid projected into the cyst. This fibroid was cut away and caused no trouble. The patient made an uneventful recovery. A section of the cyst wall consisted of ovarian tissue and showed old corpora lutea. A second section showed the tube stretched out in the cyst wall, its lumen containing a few flattened-out rugæ, and its walls consisting of unstriped muscle arranged in bundles cut across and obliquely.—The case was discussed by Dr. A. H. N. LEWERS, Mr. J. H. TARGETT, Mr. MALCOLM, and the PRESIDENT.

Mr. E. A. BARTON, in showing a specimen of Fœtus Compressus, pointed out that the ovum was passed ten hours after the normal delivery of an eight months living child. The woman had married twice. By her first husband she had had three single children and by her second husband three sets of twins, besides a single child and a miscarriage. There was no history of twins on either side or of syphilis. The fœtus measured seven centimetres by three centimetres but was only five centimetres thick and appeared to be macerated. The cord was ten centimetres long by one centimetre thick. The placenta was 7·5 centimetres by 6·4 centimetres but was only 1·75 centimetres thick. It appeared to be normal to the naked eye, though the ovum had remained in utero for five months. On section the placenta showed marked degeneration of the chorionic villi and also in a less degree of the decidual cells.

Dr. LEWERS and Mr. MALCOLM showed specimens of cases

of Extra-uterine Fœtation and these were discussed by Dr. HORROCKS, Dr. CULLINGWORTH, and Dr. G. E. HERMAN.

MANCHESTER MEDICAL SOCIETY.

Rheumatic Hyperpyrexia.—Post-operative Hæmatemesis—Acid Auto-intoxication.

A MEETING of this society was held on Nov. 4th, Dr. A. M. EDGE, the President, being in the chair.

The PRESIDENT related a fatal case of Rheumatic Hyperpyrexia treated by cold baths. The highest temperature reached was 110° F. Quinine in large doses, cold sponging, continuous application of ice, and even rubbing with ice had failed to reduce the temperature, but immersion in the cold bath was always successful in bringing it down temporarily to a normal or subnormal point. Eight baths were used during the hyperpyrexial period, which lasted seven days, death being preceded by the signs of hypostatic pneumonia. Although the patient was always removed from the bath before the temperature had fallen to 102° collapse frequently ensued, requiring the use of stimulants and hot applications. There were very well-marked nervous symptoms, including pain and stiffness in the neck, delirium, clonic convulsions, internal strabismus of the right eye, spasm of the left facial muscles, spasm of the masseters interfering with the opening of the mouth, and protrusion of the tongue. Reference was made to the tetaniform nature of many of these symptoms. The necropsy proved the case to have been one of pure hyperpyrexia without complication except the terminal pulmonary congestion.

Mr. CHARLES ROBERTS read a paper on Post-operative Hæmatemesis with illustrative cases. He described 12 cases, dividing them into two groups. In the first the condition was associated with profound toxæmia and was satisfactorily explained on the theory that it was due to sepsis, the operation acting only as a possible predisposing factor. In the second group the condition occurred apart from sepsis. Three cases were described in detail. The various theories as to the cause of post-operative hæmatemesis were discussed.

Dr. F. CRAVEN MOORE read a communication on the subject of Acid Auto-intoxication *sui generis*. After referring to the clinical and experimental basis of the modern conception of acid intoxication, the prototype of which obtained in connexion with diabetes mellitus, the occurrence of such intoxication apart from diabetes was dealt with and a division of such cases into two groups was adopted—viz.: (1) those in which manifestations of acid intoxication occurred in association with, and probably secondary to, some general morbid state; and (2) those in which they occurred apart from any general disease to which they might be regarded as secondary and apart from any lesions post mortem which would afford adequate explanation of their obtaining to this group, the term acid intoxication *sui generis* being here properly applicable. As illustrative of this condition the following cases from the hospital practice of Professor J. Dreschfeld were described. The first case was that of a female, aged 30 years, who had for some two months suffered from attacks of vomiting, gastralgia, constipation, pallor, and weakness. Four days before death she suffered from drowsiness, prostration, air hunger, and exhibited a strong odour of acetone. The urine gave no reaction for glucose. On admission to hospital the vomiting ceased, the patient became rather excitable, and then lapsed into a comatose condition which terminated fatally in about 20 hours. The urine was highly acid, contained a trace of albumin and no sugar, gave well-marked reactions for acetone and aceto-acetic acid, and also for β-oxybutyric acid. A filtered specimen gave a rotation of − 3° (2 dm. tube); an ethereal extract exhibited negative rotation and crotonic acid was obtained on distillation with H_2SO_4. The second case was that of a female, aged 14 years, who had suffered from recurrent attacks of vomiting and constipation without indications of gastro-intestinal lesion, the condition being apparently "hysterical" vomiting. The breath and urine contained acetone; the latter also contained aceto-acetic acid and β-oxybutyric acid (α = 0·46° in 2 dm. tube). With suitable dieting, evacuant enemata, and alkalies internally these manifestations disappeared. The third case was that of a female suffering from mitral disease with broken compensation; she exhibited for a few days acetone, aceto-acetic acid, and β-oxybutyric acid (α = − 0·2°) in the urine. Of these cases the first represented the severe form of acid intoxication *sui generis*; the second to some extent simulated the condition of cyclical vomiting regarded by Edsall as an acid intoxication; and the last was apparently acid intoxication of slight degree and secondary.

LIVERPOOL MEDICAL INSTITUTION.

Pleural Effusion.—Pylorectomy.—Suprapubic Prostatectomy.—Rheumatoid Arthritis.

A MEETING of this society was held on Nov. 5th, Mr. J. RUSHTON PARKER, the President, being in the chair.

Dr. JAMES BARR described his method of treating pleural effusions. After removal of the fluid from 40 to 60 minims of adrenalin chloride, 1 in 1000, were injected. He had used it in many cases with invariable success. In ascites the method was not so successful. He also described an apparatus for the introduction of aseptic air into the pleural cavity.

Mr. F. T. PAUL reported several cases of Pylorectomy. Two patients operated upon *in extremis* died. The other three recovered—(1) a woman, aged 56 years, with extensive cancer of the pyloric end of the stomach who died 16 months later from recurrence; (2) a man, aged 46 years, with an early cancer; and (3) a woman, aged 56 years, in whom the tumour proved to be an inflammatory mass. The two latter patients were so far in excellent health. Mr. Paul also showed a man with Carcinoma of the Pylorus who had improved so much after gastro-enterostomy that he proposed to excise the growth.—Sir WILLIAM M. BANKS said that his experience of removing the pyolrus for cancer was but slight, as he never had any great opinion of the operation owing to the impossibility of removing completely the affected lymphatic glands lying in the curve of the duodenum and embedded in the head of the pancreas. He had operated in about half a dozen cases. They all recovered and for a while appetite returned, weight increased and so on, only to be followed by death in every case. He was not sure whether patients did not live as long and as comfortably with a successful gastro-enterostomy as with excision of the cancer.—Mr. R. W. MURRAY said that if a radical cure was to be hoped for in cases of carcinoma of the pylorus the growth must be more freely excised than pylorectomy with union of duodenum and stomach permitted of. In such cases he advocated gastro enterostomy with removal of about one-half of the stomach.—The PRESIDENT remarked that cases suitable for pylorectomy were quite exceptional among cases of malignant disease. When he had performed a pylorectomy the narrow duodenal tube had been sewn to the upper part of the wider opening in the stomach and then the redundant remainder of the latter closed.—Mr. PAUL replied.

Mr. G. P. NEWBOLT read notes of two cases of Enlarged Prostate treated by Suprapubic Prostatectomy. One patient, aged 70 years, from whom a prostate weighing five and three-quarter ounces was removed in May, 1903, was shown in good health, being troubled only by frequency of micturition. The other patient, aged 62 years, died from uræmia four days after operation. His bladder was shown, the space from which the prostate, weighing one and a quarter ounces, was removed being demonstrated; its base was formed by a well-marked layer of recto-vesical fascia. In both cases the prostatic urethra was torn away together with the ejaculatory ducts.—The PRESIDENT said that he had devoted what attention he could to the perineal method described by their American colleagues, Professor Alexander and Dr. Parker Sims of New York, at the Manchester meeting, 1902. The operation had proved satisfactory to him and to his patients.—Mr. D. DOUGLAS CRAWFORD recognised Freyer's operation as the ideal one. Although easy in adenomatous cases it was difficult in the fibroid form, and he preferred to punch out portions of the prostate in the latter cases.

Dr. C. J. MACALISTER read a paper on Rheumatoid Arthritis and its Relation to other Diseases. He pointed out that the disease as generally seen in institutions was in the stage of deformity and that very often the active processes had been arrested, and he indicated that it was very necessary to treat the disease during its very earliest and acute stages if any real benefit was to ensue. Having referred to the fact that acute rheumatoid arthritis frequently resulted from infections from the nasal, gastro-intestinal, and other mucous

membranes, he proceeded to cite a number of examples where rheumatoid conditions had been associated with some perversion of the thyroid functions and stated that the symptoms in these cases had disappeared altogether or had been greatly ameliorated by the administration of thyroid gland. Dr Macalister then proceeded to deal with the early symptoms of rheumatoid arthritis and he pointed out how frequently vascular spasms of the extremities precede the joint affections and also that muscular cramps were of frequent occurrence as initial symptoms and he suggested that the poison was very like ergot in its general effects. He considered that there was a close association between Raynaud's disease and some cases of rheumatoid arthritis and, furthermore, that he had seen cases of Graves's disease which suggested that a relationship existed between all three diseases. After referring to the fact that iodine might possibly produce its occasional beneficial effects through the thyroid gland which normally contained iodine, he proceeded to suggest that the toxin of rheumatoid arthritis was not eliminated from the body owing to the fact that it either paralysed the organs of elimination or failed to stimulate them, so that however freely the skin or kidneys might appear to be acting they could not remove this particular poison from the blood and that in order to be eliminated the constitution of the poison had to be changed. In support of this hypothesis he quoted a case where in the acute stage a patient with intensely swollen and painful joints remained unrelieved in spite of the fact that the kidneys and skin were acting profusely until (all other drugs having failed) large doses of quinine were given which caused the poison to be poured out through the skin in the form of a horribly smelling, volatile matter which was so offensive that the patient could not be kept in the ward and that with this elimination there were an immediate subsidence of the pains and swellings and a speedy convalescence.—Dr. R. LLEWELLYN JONES (Bath) regarded rheumatoid arthritis as a symptom-complex and thought that given any source of auto-intoxication the resulting toxæmia might through its action on the cord segments produce what was called rheumatoid arthritis. He emphasised the importance of the gastro-intestinal tract as a source for such poisons. He alluded to the occurrence of recurrent attacks of local syncope and asphyxia in these cases and also to the presence of muscular cramps affecting mainly the extremities and in others also the muscles of the head and neck. This might suggest a common parent origin, a cerebro-spinal toxæmia, for Raynaud's disease, tetany, and early rheumatoid arthritis. He had also noted the connexion of Graves's disease. Dr. Macalister's gratifying results with thyroid feeding afforded him much pleasure, all the more so as he was able to confirm it from his own experience.—The PRESIDENT said he knew from the practice of a friend that feeding was a most important factor in the treatment of these cases. His friend advised the consumption of three pints of milk in addition to the ordinary meals and the President had seen benefit accrue even in some well advanced cases.—Dr. BARR, Dr. G. G. STOPFORD TAYLOR, Dr. S. A. GILL, and Dr. W. B. WARRINGTON spoke, and Dr. MACALISTER replied.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.—Enterectomy for Tuberculous Stricture of the Intestine.—Valedictory Address.—Election of Office-bearers.

THE first meeting of the eighty-third session of this society was held on Nov. 4th, Sir THOMAS R. FRASER, F.R.S., the retiring President, being in the chair.

Dr. NORMAN WALKER demonstrated a case of Multiple Rodent Ulcers on the face of a female patient. The original ulcer on the usual site had healed under the influence of the x rays. At present there were about a dozen small ulcers scattered over the forehead and the face. This multiplicity was important from a diagnostic point of view.

Mr. HAROLD J. STILES showed a boy after Transplantation of Tendons for Paralytic Equino-varus. The long extensors of the leg were paralysed with the exception of the extensor longus hallucis. The peroneal and superficial muscles of the calf were likewise paralysed. The deep calf muscles were active. In the leg both in front and behind the tendons were transplanted into active muscles and the boy now possessed a little movement of the ankle-joint.

Dr. EDWIN BRAMWELL showed a case of Hemiplegia of 12 months' standing in a man, aged 51 years, who had had syphilis 24 years previously. The Argyll-Robertson pupil was present on both sides. The right Achilles jerk was absent, although the knee-jerk on that side was markedly exaggerated. The patient had had shooting pains in his legs for several years. Dr. Bramwell was of opinion that these facts justified a diagnosis of associated pre-ataxic tabes. There was a bilateral extensor response, most pronounced, however, on the right side. Stimulation of the sole of the left foot was followed by a flexor movement of the right great toe. The sign of "flexion of the thigh on the trunk," described by Babinski, was present on the right side; the tibialis phenomenon of Strümpell was also well marked on this side.

Mr. A. A. SCOT SKIRVING showed two patients after Wound of the Knee-Joint. The first patient was a man, aged 52 years, who fell through a glass plate, partially dividing the quadriceps extensor and opening into the knee-joint. The wound was very dirty. After the application of a carbolic poultice the wound was enlarged and two large pieces of glass were removed ten hours after the injury. After thorough cleansing of the wound the capsule of the joint was closed and the wound healed by first intention. The second patient was a boy who suffered from acute suppuration of the knee-joint as a result of a wound from a dirty needle. The joint was freely drained and extension was applied. Passive movements were commenced fairly early. The usual statement in text-books was that the best result which could be hoped for in such cases was ankylosis. It might be that a more hopeful result was to be expected in children. At any rate the boy shown had very free movement in the knee-joint.

Mr. DAVID WALLACE showed: 1. A lad, aged 19 years, who suffered from a Congenital Hypertrophy of the Left Half of the Tongue. The left half was twice the size of the right and had a papillomatous appearance and varied in size from time to time. The latter condition was noted in a case recorded by Hutchinson. 2. A man who had a Dislocation of the Acromial End of the Clavicle which had been treated by wiring. Though the movement was very good the bone was not in proper position.

Dr. W. ALLAN JAMIESON showed: 1. A case of Parakeratosis Variegata in a woman, aged 35 years. The disease commenced eight years ago and at present the whole body was more or less affected, the skin of the trunk and limbs being of a deep crimson-red colour shading into brown in places and dotted over with white spots. The epidermis seemed to be looser on the cutis than normally. The surface was glossy like silk and itchiness was complained of. Much improvement had resulted from the use of glycerine of starch with 40 grains of resorcin to each ounce. 2. A case of Mycosis Fungoides in the erythrodermic stage. The patient was a woman, aged 49 years, and almost the whole body was covered with ill-defined brick-red patches or slightly roughened yellow areas, on parts of which were crusts. The inguinal and cervical glands were enlarged. As yet there were no tumours. Exposure at a distance of ten inches to the x rays was being tried as treatment. 3. A patient to show the Results of Treatment in a severe case of Ichthyosis. The lad, aged 16 years, had been treated by daily washing with a resorcin and salicylic soap, followed by inunction twice in 24 hours with glycerine of starch containing a drachm of resorcin to the ounce and with marked benefit. 4. A case of Ichthyosis showing unusual distribution. The girl, aged 13 years, showed on the palms and the soles great thickening of the epidermis, that on the soles being more than a quarter of an inch in thickness. At the bend of each elbow and in the axillæ large areas were covered by an almost black filiform growth interspersed with fine hairs. The same condition was present on the nipples and their areolæ, the flanks, the front of the abdomen, the groins, the patellar area, the popliteal spaces, the ankles, and the front of the toes. The appearances were those of ichthyosis hystrix.

Mr. J. M. COTTERILL exhibited a man with a Sarcoma of the Shoulder at present being treated with the x rays.

The following card specimens were shown:—

Dr. A. HILL BUCHAN: Two Microscopical Preparations from a case of Asthma.

Mr. SCOT SKIRVING: (1) Stereoscopic Photographs of a series of Extragenital Chancres; and (2) Specimen and Photograph of a peculiar Foreign Body (Extremity of a Locust Bean) impacted in the Left Bronchus.

Mr. COTTERILL: (1) a Large Multiform Ovarian Cyst; (2) a Kidney removed from a child, aged five years, for

hydronephrosis due to congenital occlusion of the ureter; (3) a Tumour removed from the gluteal region of a child, aged nine months (with slide); and (4) Specimens to illustrate longitudinal splitting of the internal semilunar cartilage in so-called "dislocation" of that structure.

Mr. F. M. CAIRD: Specimens of Stricture of the Bowels.

Mr. CAIRD read a paper entitled "Enterectomy for Tuberculous Stricture of the Intestine." He said that there were but few papers upon, and scanty attention had been given to the subject of, tuberculous stricture of the intestine in English medical literature and that they owed their knowledge of the condition mainly to continental authorities. Therefore the experience derived from the cases to be shortly related might be of some value from a diagnostic, prognostic, and therapeutic point of view. Tuberculous stricture appeared to be most frequent in early life, up to 30 years of age, and became rarer with advancing years. It was interesting to note, however, that four of the following patients were over 30 years of age. The disease favoured the sexes alike although they might anticipate that extension from the Fallopian tubes might predispose to its more frequent occurrence in the female. In Mr. Caird's cases marked stenosis was due to three very definite varieties of fibrous hyperplastic change. The most frequent type was that in which zones of tuberous papillary projections developed to a variable extent. At the maximum point of stenosis annular constrictions might also occur and might so encroach on the lumen as almost to cause obliteration and to convert it into a narrow tunnel. Both forms had been observed in one patient. A solid bobbin-like mass strongly suggestive of a new growth was discovered on one occasion. Forms intermediate between all the above abounded. The cæcum and the lower part of the ileum were the favourite sites. The ileo-cæcal valve and the cæcum were affected in six of the cases. The appendix was then lost in the general mass of proliferated tissue and could only be recognised by making sections. In four cases the small intestine only suffered. There was a tendency to the formation of fresh zones of hyperplastic growth in the distended hypertrophied gut immediately above the level of the main stricture. Multiple strictures might, however, exist with some intervening areas of healthy gut. The diagnosis of the cases during life might present considerable difficulty and they had to differentiate between the inflammatory mass of a chronic appendicitis, the varieties of malignant disease, and the other swellings which might be found in the ileo-cæcal region. When the small intestine was alone at fault the recognition became simpler. The clinical features usually presented a long history of failing health and indigestion associated with progressive emaciation. The bowels were usually constipated and purgatives were generally required. Severe colic pain and tenderness became gradually pronounced and very loud borborygmi annoyed the patient and were audible to bystanders. Vomiting might be frequent and often afforded relief. Hæmatemesis was not met with nor yet diarrhœa or the passage of blood, although piles might co-exist. The abdomen became swollen and tense and ladder-like pasterns and marked peristaltic waves were seen. A tumour might be palpated in ileo-cæcal cases. Owing to the size of the lesion the cases were chronic and the stricture must be very tight, be blocked with some foreign body, or be complicated by adhesions to adjacent coils of intestine before complete obstruction with its usual manifestations developed. The principles common to enterectomy for malignant disease, gangrene of the bowel, &c., guided them in dealing with tuberculous stricture, but the operative measures were frequently more difficult, and this was especially the case when they had to deal with adhesions. The surgeon might shell out a loop of intestine affected with carcinoma from a mass of surrounding dense inflammatory tissue, as was well seen in cases of adherent cæcal and sigmoid tumour, but in tubercle there was greater infiltration and while carcinoma might be shut in by the new fibrous tissue the tuberculous process frequently burst through the muscular and serous coats and infiltrated widely. The free non-adherent strictures of the small intestine gave rise to less trouble, but in any case an anxious element existed in the form of extensive implication of lymphatic glands which might necessitate a far-reaching removal of mesentery and entail the sacrifice of healthy intestine. Or again some of the caseating glands might have softened or suppurated and might rupture into the peritoneal cavity during manipulation and so determine a fatal issue. In operating, then, the patient should be suitably prepared and the surgeon should cut wide of the diseased area and see that a distended intestine above the stricture was thoroughly emptied. It was always important to plant the sutures in healthy non-congested bowel. There were three series of cases to be dealt with. 1. If the stricture be localised, solitary, and non-adherent, it should be divided well above the proximal dilated portion, since there was a tendency for the development of secondary tubercle at points of erosion and ulceration above the primary lesion. Should there be multiple strictures separated by a lengthy interval of healthy intestine, it was better to deal with each stricture individually than to sacrifice a huge stretch of the alimentary canal. 2. In dealing with an area of matted coils it was advisable to ascertain in the first instance the extent and relation of the parts involved; the surgeon must then carefully identify the free healthy proximal and distal intestine and applying clamps proceed to remove the entire mass. The mesenteries might be divided close to their origins as this entailed the ligation of fewer, if larger, vessels and allowed the operator to remove all the lymphatic glands. Since the latter could not well be dissected out without damage to the blood-supply of the intestine it might be necessary to remove much bowel in clearing away the infected glands. Should the mass at any point be firmly adherent to an adjacent healthy loop it would appear needful to resect that loop also or to resect the implicated wall and so to avoid the possibility of leaving a future focus of disease. 3. When there were numerous adhesions of coils, not only to each other but also to adjacent structures and the implicated mass could not be liberated without grave risk, it might be safer to sever the healthy proximal and distal coils of gut and to unite them end to end; the divided lumina in connexion with the diseased area might be conducted externally so as to open on the abdominal wall. It was also probable that a short-circuiting by lateral anastomosis in such circumstances might give better results than any other method of treatment. Of 11 patients subjected to enterectomy seven recovered and four died. The amount of intestine resected had varied with the size and situation of the stricture, the condition of the gut above, its adhesions, and the extent of lymphatic glandular infection. In one patient double enterectomy was practised with the removal of two strictured portions, five and eight inches respectively in length. In one other 40 inches of small intestine and in a third no less than 80 inches, including the cæcum and greater part of the ascending colon, were resected.

Table of Cases of Enterectomy.

No.	Age (years) and sex.	Condition.	Operation.	Result.	After-history.
1	9, M.	Ileo-cæcal; quiescent; tuberculous stricture.	Resection, 1899.	Recovery.	Well.
2	7, F.	Ditto; many enlarged and caseating glands.	Resection 1895; secondary suture.	,,	,,
3	24, M.	Ascending colon; extensive matting.	Resection, 1890.	Died; fæcal infection.	—
4	12, M.	Ileum.	Resection of six inches, 1891; primary suture.	Recovery.	Well.
5	61, M.	Ileum; extensive infection of the enteric glands.	Resection of 80 inches, 1901; secondary suture.	,,	Died; recurrence.
6	68, M.	Ileum; matting of glands.	Resection of 40 inches, 1901; primary suture.	,,	Died; cardiac failure.
7	57, M	Ileum; two strictures.	Double enterectomy, 1901; primary suture; 13 inches.	,,	Died; recurrence.
8	34, F.	Ileum; cæcum; Fallopian tubes.	Resection, 1902.	Died.	—
9	30 F	Ileum; cæcum.	Resection of seven inches, 1902; primary suture.	Recovery.	Poor health; fæcal fistula.
10	34, M.	Ileum; glands suppurating.	Enterectomy, October, 1903.	Died.	—
11	46, M.	Ileo-cæcal and ileum.	Double enterectomy, 1903.	,,	—

The patients did not seem to suffer inconvenience from this excessive loss of intestinal surface. In regard to the further history of the cases the three young patients recovered and continued well. The three elderly men did not long survive. The eldest, aged 68 years, made a good recovery but suddenly dropped dead from cardiac failure. The two others, after enjoying a short period of renewed health, succumbed to emaciation and general enlargement of the whole mesenteric and abdominal lymphatic glands. In these three cases a section was obtained and each showed evidence of old pulmonary tubercle. The sites of junction were perfectly patent without the slightest trace of contraction. There was evidence, however, of the formation of further stenosed and ulcerated areas and a fistula bi mucosa existed between the lower part of the ileum and the sigmoid in one instance. A fæcal fistula developed some months after resection of the ileo-cæcal region in one weakly patient. A second exploration revealed extensive matting and lateral anastomosis was then performed but without marked benefit ensuing. Malignant disease was associated with tubercle in two cases of ileo-cæcal tubercle and colloid cancer and probably in one other case sarcoma was associated with the local condition in the small intestine.

The retiring PRESIDENT then delivered his Valedictory Address. He said that the record of the society was that of its members and that success or the contrary must largely depend on the vigour and activity that were brought to the society by the number of the members who took part in the proceedings. It was therefore gratifying to find that since the end of 1901 the membership had increased by 33, the total number of ordinary members being now 426. The President then gave a record of those honorary and ordinary members who had died during the past two years and paid tributes to Virchow amongst the former and to Dr. Stewart Stirling and Dr. R. Peel Ritchie amongst the latter. Of the non-resident members who had died during this period the names of Dr. George W. Balfour, Professor Young of Glasgow, Dr. W. S. Playfair and Dr. T. J. Maclagan, both of London, and Dr. Archibald Dickson stood our prominently. The most important work of the society consisted in the original communications read before it and during the past two sessions 36 such communications had been given. 28 of these related to medicine and eight to surgery. Curiously enough, and in contrast with previous years, papers dealing with the heart and circulation were absent. The nervous system, special therapeutics, and affections of the respiratory apparatus were the groups most largely represented. The aims and endeavours of the society were not, however, limited to the diffusion of professional knowledge amongst its members, but also included the advancement among the general public of improvements and reforms in the prevention and treatment of disease and the promotion before a wider public than was usually present at the meetings of schemes which appeared likely to promote the social and the physical well-being of the inhabitants of the country and upon which they were convinced the prosperity of the nation was largely dependent. Sir Thomas Fraser did not think that there had been any lack of endeavour in these directions during the two years in which he had occupied the President's chair. He referred to the fact that after careful consideration the society last year resolved to petition the town council to continue the notification of measles and although the request had not been acceded it was probable that some practical results would be obtained. In that year also at a special meeting largely attended by representatives of the chief public and social institutions of the city an important discussion took place on the advisability of more largely providing for the treatment of incipient and transitory mental disorders in wards connected with the Royal Infirmary. A recommendation so influentially advanced naturally received careful consideration from the managers of the Royal Infirmary, but difficulties had arisen at present in providing this necessary accommodation. When this temporary obstacle had been removed there was reason to believe that the recommendation of the society would be realised, to the great advantage of a deserving section of their fellow men and of the public generally by the increase that would thereby be gained in the educational resources of the medical profession and the consequent enhanced ability of the members of that profession to cure disease. In the meantime the action of the society had rendered it probable that a much-required improvement would soon be effected in the organisation of the wards of the Royal Infirmary. A second special meeting was also held in the hall of the Royal College of Physicians of Edinburgh for the purpose of discussing the prevention of pulmonary phthisis and the notification to the sanitary authority of cases of that disease. A motion was adopted at that meeting favourable to compulsory notification, but at the same time several of the speakers expressed themselves with some hesitation on the adoption of this extreme measure, mainly, the President thought, on the ground that there would thereby be thrown upon the sanitary authorities responsibilities which they could not undertake. On that occasion the President had stated that he felt much doubt whether material benefit would be gained by isolation because of its impracticability or by a diffusion of knowledge because of its probable barrenness of results among the least enlightened members of the community, or by such precautions as the prohibition of expectoration in streets and public places because of the impossibility of carrying it into effect and of the probability that in the open air of streets tuberculous sputum was not an important danger. More benefit, he thought, would be gained by the adoption of the relatively simple measures which were required to improve the health and to increase the physical strength of all classes and especially of those who occupied the lower stratum of society. All experience had shown that the chief and at the same time essential of these simple measures, with which at the present time there was no competing rival, was the providing of sufficient pure air, light, and space in dwelling houses. It was to all intents a special meeting at which Dr. T. S. Clouston, the President of the Royal College of Physicians of Edinburgh, initiated a discussion on the Scottish Medical Corporations and the Common Weal: how they might Develop a Health Conscience. With his great courage and untiring energy the author of this proposal was, he believed, still engaged in the work of carrying it to a practical issue. The President referred with satisfaction to the institution of clinical meetings in the Royal Infirmary and in the Sick Children's Hospital and to the large attendance of members at the meetings as contrasted with former years as well as to the satisfactory condition of the funds of the society. In concluding, he thanked the members for the high honour which they had done him in electing him two years ago to the distinguished position of their president and felt it a great pleasure and gratification that under the direction of his successor, Professor Chiene, the society would have the best of prospects of continuing its career of prosperity and of maintaining its usefulness.—On the motion of Dr. CHARLES E. UNDERHILL a cordial vote of thanks was awarded to the President for the able and kindly manner in which he had fulfilled the duties of the chair.

The following gentlemen were elected as office-bearers for the session 1903-04. President: Professor J. Chiene, C.B. Vice-Presidents: Sir John Halliday Crcom, Dr. James Ritchie, and Dr. James Ormiston Affleck. Councillors: Dr. Edward Carmichael, Dr. Thomas B. Darling, Dr. William Stewart, Dr. William George Sym, Sir Thomas Fraser, Dr. Charles E. Underhill, Dr. Dawson F. D. Turner, and Dr. Norman Walker. Treasurer: Dr. H. Harvey Littlejohn. Secretaries: Mr. H. Alexis Thomson and Dr. G. Lovell Gulland. Editor of Transactions: Dr. William Craig.

WINDSOR AND DISTRICT MEDICAL SOCIETY.—The first ordinary meeting of the session of this society was held on Oct. 28th, Mr. W. B. Holderness, the President, being in the chair.—Dr. Fletcher Beach delivered an address entitled "Types of Weak-minded Children met with in Daily Practice." The address was illustrated by lantern slides. He described 13 types and gave examples of each. The first was the simple congenital type, in which there was no marked deformity of the head or the limbs. Photographs of six of these cases were shown, three being of a low type and three of a higher type. Next he described the Mongolian type, so called from a resemblance in facial characteristics to the Chinese physiognomy. A group of cases exhibiting these characteristics was shown and the history of a typical case was given. Dr. Fletcher Beach then passed to the cretin II type and described the symptoms met with in cases that had not undergone the thyroid treatment, illustrating them by the photograph of a group of five cases. He then showed a case before and after the treatment and mentioned the differences in the symptoms which were seen after the patient had been under the treatment. He said that it was necessary to watch the patient carefully, for if he should

lose weight too rapidly, or if the temperature and pulse should rise much above normal, the treatment must be stopped for a time or the dose must be reduced. The microcephalic type was next described and it was shown that heads of this kind were much smaller than normal. The microcephalic brain was also smaller than it should be and, moreover, was incompletely developed. The parts chiefly affected were mentioned, a photograph of a microcephalic brain being thrown on the screen to make these differences more clear. Two cases of this type were also exhibited and their histories were described. Very different from this type was the hydrocephalic in which the heads were larger than normal. The characteristics of this type were pointed out and the histories of two cases were fully given. A type which was sometimes mistaken for this was the hypertrophic, in which the brain was larger than normal. The diagnosis between the hydrocephalic and the hypertrophic types, which was described by Dr. Fletcher Beach some years ago, was given at length. Photographs were exhibited showing the differences between the two shapes of head and the history of a case illustrated by photographs was given. Another important type was the traumatic in which the defect was due either to a fall or a blow on the head or injury to the head during birth. In this type the degree of mental deficiency varied with the extent of the destruction of brain tissue and the presence or absence of hereditary predisposition. Closely allied to this type was the eclamptic in which convulsions supervened soon after birth, continued for some years, and then ceased, but the effect on the brain was so injurious that the child became mentally deficient. The histories of two such cases were mentioned and a photograph was shown. The epileptic type included patients who recovered under treatment, patients who improved considerably, others who remained stationary, and others who deteriorated and became demented. Photographs were exhibited of each of these classes and the history of a case which remained stationary was described. Another important type was the inflammatory or post-febrile, in which the mental deficiency came on after an attack of measles, whooping-cough, typhoid fever, or scarlet fever. Many children of this type did remarkably well under training; two photographs were exhibited and the histories were given. A type frequently met with was the paralytic and the paralysis might occur before or after birth. An illustrative case of each class was described and photographs were shown. A less frequent type was the scaphocephalic in which the patient presented a keel-shaped head—narrow from side to side and elongated from front to back. A case of this kind was described and a photograph was shown. Finally, Dr. Fletcher Beach mentioned the feeble-minded, which type was a much higher type than those which had been previously described. Three photographs of this type were shown and the history of one who was employed as a shoemaker was given. He had considerably improved in school work before being sent out to pass the whole of his time in the shop.—A vote of thanks to Dr. Fletcher Beach for his interesting address terminated the proceedings.—The annual dinner of the society took place after the meeting at the White Hart Hotel. There was a good attendance of members.

MIDLAND MEDICAL SOCIETY.—The second ordinary meeting of this society was held at the Medical Institute in Birmingham on Nov. 4th, the President, Dr. Robert Saundby, being in the chair.—Dr. J. R. Charles showed a case of Huntingdon's Chorea in a woman. A peculiar feature of the case was that of all the cases occurring in the patient's family—three generations—the majority were females. The patient presented the usual features of the disease, the movements especially being characteristic.—Dr. J. Douglas Stanley stated that the patient had formerly been under his care at Queen's Hospital and that this was the third instance occurring in Birmingham within the last nine years of a family affected with Huntingdon's chorea. He considered that no clinical difference could be drawn between Huntingdon's chorea and senile chorea, except that of a family history in the former.—The President referred to cases of senile chorea formerly under his observation and considered that they were quite distinct in character from Huntingdon's disease.—Dr. Charles, in reply, considered that senile chorea was a sporadic instance of Huntingdon's disease.—Dr. C. E. Purslow reported that at the March meeting of the society he showed a specimen of Uterine Appendages with a small body situated in the broad ligament close to the ovary which he had ventured to call an accessory ovary. This body bore an exact naked-eye resemblance to the ovary near which it lay and at the meeting none of the members present who examined the specimen raised a doubt as to its being an accessory ovary. A microscopical examination had not then been made, as to have done so would have destroyed the specimen. Sections had, however, since been cut and these clearly showed that the nodule was a small fibroma and did not contain any ovarian structures.—Mr. Jordan Lloyd showed a specimen of Enucleated Prostate and also a Vermiform Appendix which presented a well-marked stricture and a dilatation beyond. Mr. Jordan Lloyd then read a paper entitled "The Pathology and Treatment of Diseases of the Natural Cavities and their Ducts." He instanced the condition of the urinary bladder, the appendix, the bronchi in cases of obstruction, and especially the stomach when there was pyloric obstruction. He was rather inclined to believe that when gastric dilatation existed there was obstruction to the outlet through the pylorus and that, therefore, the rational treatment was to relieve the obstruction.—Mr. William Thomas referred to a case quoted by Mr. Jordan Lloyd in which tracheotomy had given relief to a patient with cicatricial contraction due to cut-throat.—Dr. Stanley asked Mr. Jordan Lloyd if muscular defects were not competent to cause gastric dilatation. He thought that every case of dilated stomach should be taken on its merits and that every means should be taken to ascertain its cause before resorting to operative procedure.—Dr. T. Nelson referred to a case of aortic aneurysm in which there were marked bronchial symptoms.—Dr. Walter R. Jordan asked Mr. Jordan Lloyd how he would decide clinically between cases of gastric dilatation due to pyloric obstruction and those the existence of which he believed to be due to muscular relaxation.—The President referred to the important aid to diagnosis obtained from examination of the gastric contents in the morning as ascertained by means of the stomach tube. In cases of primary gastric dilatation no food material could be found in the morning. He believed primary dilatation of the stomach to be a rather frequent condition. In his own practice he found modern methods of gastric investigation of great service if only in indicating cases that should be treated surgically.—Mr. Jordan Lloyd, in reply, deprecated undue haste in forming an opinion in all gastric cases and said that the interests of the patient required that medical treatment should have a fair trial. He was still of opinion, however, that many cases of gastric dilatation could only be relieved by surgical means.

SOCIETY OF ANÆSTHETISTS.—A meeting of this society was held on Nov. 6th, Mr. C. Carter Braine, the President, being in the chair.—The Senior Secretary read for Mr. Norman Bennett, who was unable to be present, notes of a case of Death under Nitrous Oxide. The patient was a youth, 17 years of age, who suffered from enlarged cervical glands. He showed no dyspnœa and had had nitrous oxide a few days previously without any untoward symptom. "Gas" which was administered for extraction of teeth by an assistant. The face piece was removed before stertor occurred; the patient became more cyanosed and ceased to breathe. During artificial respiration several spontaneous attempts at respiration were made. An attempt to perform a low tracheotomy was unsuccessful. It was afterwards found that the patient had been suffering from dyspnœa associated with stridor and had had respiratory difficulty on another occasion when nitrous oxide had been administered. The necropsy showed that there were enlarged glands in various parts of the body and that the diameter of the trachea was reduced by one half. The heart muscle was degenerated. The following took part in the discussion: the President, Dr. J. F. W. Silk, Dr. J. Blumfeld, Mr. W. Tyrrell, Mr. J. H. Chaldecott, and Mr. H. Hilliard.—Dr. Moritz read a paper on the Combined Administration of Nitrous Oxide and Ethyl Chloride by Dr. Hewitt's Method. Dr. Moritz's experience extended to 350 cases. He said that the anæsthesia obtained was deeper and longer than that after any other anæsthetic for dental operations in one administration. The average operative anæsthesia is about 60 seconds though often much more, while struggling, cyanosis, and muscular rigidity are absent. Recovery is not so quick as after "gas" or "gas" and oxygen but is more rapid than after somnoform and ethyl chloride. The patients were not prepared for anæsthesia. With regard to after effects, vomiting appeared in about one

case in seven and was variable in degree up to three hours. Headache was fairly common but usually did not last long. Vertigo occurred in a few cases. Hysterical demonstrations and in men violent hitting out occasionally were seen. The conjunctival vessels were injected. Different brands of ethyl chloride gave the same results. The severity of after-effects seemed to depend on the absence of dieting and the quick resumption of the erect posture. Under favourable conditions the combination in question was the finest anæsthetic at present at their disposal for short operations.—The paper was discussed by the President, Dr. Bakewell, Mr. Chaldecott, Dr. Scharlieb, Dr. Noble, Dr. Blumfeld, Dr. R. J. Probyn-Williams, Dr. Silk, Dr. G. B. Flux, Mr. Hilliard, Dr. McCardie, and Mr. Wallis.—Dr. Moritz then replied.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.—A meeting of this society was held on Oct. 30th, Dr. A. F. Street, the President (Westgate-on-Sea), being in the chair.—The President delivered an address on Some Questions in Seaside Climatology. He suggested that there were physical differences between the atmospheres of different places beyond those comprised in the factors ordinarily considered as constituting climate and it was contended that this view was borne out by more or less generally admitted facts as regards the local rarity of certain diseases such as scrofula and the curability of cases imported into certain localities. Evidence was adduced to show that ozone had been credited with too great a share in the stimulating properties of sea air, that its prevalence had not been completely demonstrated, and that the salts diffused by spray could not have a notable therapeutic effect. The questions of a percentage of oxygen and of the possible influence of the rarer atmospheric gases, of atmospheric electricity, and of any physiological effects of radio-activity and its presence in sea air and sea water were raised. Reference was made to the principles governing the selection of climates for invalids and to the public duty of avoiding pollution of the atmosphere.—Dr. Leonard Ll. B. Williams proposed, and Dr. G. W. Hamilton Cumming (Torquay) seconded, a vote of thanks to the President for his address.—The President replied.

ROCHDALE AND DISTRICT MEDICAL SOCIETY.—A meeting of this society was held on Nov. 5th at which Dr. J. A. Ashcroft, the President, gave an address on Appendicitis. After some remarks on peritonitis generally and on the various morbid conditions liable to occur in the right iliac fossa, the causation of appendicitis was discussed. There were four varieties clinically (1) slight cases amenable to medical treatment; (2) more severe cases with the formation of abscess; even some of these might yield to non-operative treatment; (3) acute perforating cases which required operation; and (4) relapsing cases. Pain was frequently referred to the back or to the inner aspect of the thigh. As regards treatment the general principles were rest, the withholding of food, and the avoidance of opium. Opinions differed as to the time for operation, American surgeons inclining to operate early, while British surgeons, generally speaking, preferred expectant treatment at first and operation between attacks. Patients liable to appendicitis should be careful as to what they ate, should have regular meals, and should avoid hurry.—Mr. S. T. Lord, Mr. W. Pooley, Dr. H. Brooks, and Mr. H. H. I. Hitchon joined in the discussion, Dr. Brooks stating that he had had two severe attacks of appendicitis and had undergone operation; he gave his personal experiences.—The President was cordially thanked for his address.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—At a meeting held on Oct. 28th, Dr. J. H. Stowers, the President, being in the chair, Dr. P. S. Abraham showed: (1) A case of Xanthoma Diabeticorum; and (2) a case of Scleroderma.—Dr. E. G. Graham Little showed: (1) A case of Epithelioma which had developed on the site of a nævus; (2) a case of Symmetrical Gangrene of the Auricles; and (3) a case of Elephantiasis.—Mr. George Pernet showed: (1) A case of Secondary Hirsuties on the site of a cleared-up lichen patch; and (2) a case of Lupus Erythematosus Disseminatus.—Dr. G. Norman Meachen showed a case of Persistent Purpura.—The President showed: (1) A water-colour drawing of a case of Peliosis Rheumatica; (2) two cases of Tertiary Syphilis; (3) a case of Rodent Ulcer which had been recently operated upon; and (4) a case of Lupus Erythematosus.—Dr. V. H. Rutherford showed a case of Lichen Planus.—Dr. T. D. Savill showed a case of Hypertrophic Scarring after Variola.—Mr. Arthur Shillitoe showed: (1) a case for Diagnosis; and (2) two cases of Syphiloderma.—Dr. Wilfrid B. Warde showed a case of Extensive Hypertrophic Scarring after Typhoid Fever.—Dr. Alfred Eddowes showed a photograph and microscopical sections of a case of Cyst-adenoma of the Sebaceous Glands.

EDINBURGH ROYAL MEDICAL SOCIETY.—A meeting of this society was held on Nov. 7th, Dr. Fitzwilliams being in the chair.—Dr. Shaw, Senior President, gave from the chair his presidential address, his subject being the Relation of Medical Men to the Community with Special Reference to the Improvement of National Physique.—Dr. Fletcher showed a case of Pseudo-hypertrophic Paralysis occurring in a man, aged 23 years. The calf muscles, the biceps, and the triceps were especially enlarged; while the gluteal muscles and the trapezius and the latissimus dorsi were atrophied. The patient showed the characteristic attitude when standing and also "climbed up his knees" in rising from the floor. He had so far improved under treatment.—Dr. Fletcher also showed a case of Senile Chorea in a male patient, aged 36 years. The symptoms had been present, gradually increasing, for six years. Some points in the case suggested an element of malingering or that it might be an unusual case of general paralysis of the insane.—Dr. Morton read notes of a case of Acute Bright's Disease with uræmic convulsions. The prognosis and treatment were complicated by the presence, in addition to the kidney disease, of alcholic cirrhosis of the liver, acute apical pneumonia, and ichthyosis. The kidney showed evidence of an acute nephritis superadded to old-standing disease.

GLASGOW SOUTHERN MEDICAL SOCIETY.—This society met for the first meeting of the session on Oct. 29th, Mr. Thomas Richmond, the President, being in the chair. There was a good attendance of members to hear the President's address on Reminiscences of my Student Days and of Thirty-six Years of Practice. A reference was made to the days when darkness became light at the dawn of Listerism. After paying a warm tribute to Lord Lister the President reverted to the old Andersonian College as it was when situated in George-street. Of his old teachers, giants in the medical school of Glasgow 40 years ago, he spoke with deepest reverence, and tracing proudly the careers of those still surviving he alluded to the high positions which they now occupied in the medical world. The great advances which had been made in medical science within the last 40 years were next touched upon and an earnest appeal for a thorough review of the present treatment of inebriety was made.—On the motion of Dr. D. Macgilvray, Mr. Richmond was thanked for his address.

ABERDEEN UNIVERSITY MEDICAL SOCIETY.—At a meeting of this society held on Nov. 6th Mr. A. N. Ross read a paper on Renal Surgery, its Rise and Progress. He rapidly sketched the various operations, discussing the indications for the use of each and ably criticising recent developments.—Mr. J. Robertson followed with a paper on the Therapeutics of Light in which he traced the use of light in medicine from Finsen's time up to the present day. The structure and the use of the Finsen lamp and its modifications were well demonstrated.—Interesting discussions were held on both papers and votes of thanks to the lecturers, which were heartily accorded, brought the meeting to a close.

GLASGOW NORTHERN MEDICAL SOCIETY.—The second meeting of the session of this society was held on Nov. 3rd, Dr. A. T. Campbell, the President, being in the chair.—Dr. J. Lindsay Steven read a very interesting and instructive paper entitled "The Surgical Treatment of Gastric Disease from the Physician's Point of View."—A discussion followed in which several members took part.

WEST OF ENGLAND EYE INFIRMARY, EXETER.—The annual meeting of the subscribers to the West of England Eye Infirmary, Exeter, was held on Oct. 30th, under the presidency of Mr. F. Hamlyn. The medical report stated that 3318 patients had been treated during the 12 months ended Sept. 30th last, the daily number of in-patients being 45. The financial statement showed that the ordinary expenditure had exceeded the income by £185. Dr. L. H. Tosswill who had resigned the post of honorary surgeon to the institution was appointed honorary consulting surgeon. The high sheriff of the county (Sir Thomas Acland) was elected president for the ensuing year.

Reviews and Notices of Books

The Principles of "Open Air" Treatment of Phthisis and of Sanatorium Construction. By ARTHUR RANSOME, M.D., M.A. Cantab., F.R.C.P. Lond., F.R.S., Consulting Physician to the Manchester Hospital for Consumption and Diseases of the Chest and Throat. London: Smith, Elder, and Co. 1903. Pp. 104. Price 5s.

THIS volume consists of four essays dealing with various aspects of the "open-air" treatment of pulmonary tuberculosis. The first essay is entitled the "Principles of Sanatorium and Open-Air Treatment of Phthisis." A good and explicit account is given of the various factors which take part in systematic sanatorium treatment and of the advantages and possible disadvantages of this therapeutic measure. Dr. Ransome's remarks on "Diet and Full Feeding" are well worthy of attention. There is a tendency on the part of some physicians when directing a course of "open-air" treatment to follow slavishly certain general rules in the way of diet. This is an error; success consists in the individualisation of patients; each case must be carefully considered with regard to its own peculiarities. As Dr. Ransome expresses it: "We must beware of a mere mechanical adherence to fixed rules; our aim, on the contrary, should be true physiological feeding." To compel patients to eat three heavy meals daily, in spite of frequent vomiting, can hardly be altogether beneficial and we believe Dr. Ransome to be perfectly correct when he says, "The after-histories of some of the best examples of cures turned out by this or that sanatorium conducted on this system frequently show dilated stomachs or even damaged kidneys." Dr. Ransome also refers to the importance of gain in body-weight. Doubtless this circumstance is of no small importance; it conduces to ultimate cure, encouraging patients when they need all the perseverance they can command. Stress, however, might have been advantageously laid on the fallacious character of increase in weight. It is frequently found that although a patient may gain a stone or more in weight, nevertheless the physical signs and temperature chart indicate that very little substantial progress has been made. Gain in weight therefore is only of value when taken in conjunction with other marks of improvement.

The second essay is headed "On Certain Bodily Conditions resisting Phthisis." Careful consideration is given to points concerning the natural immunity of man to tuberculosis, but the most interesting part of this essay, to our minds, is the account of the condition of the blood in pulmonary tuberculosis and in those diseases which are usually considered to be antagonistic to that malady. The increase in the number of the red blood corpuscles in those patients undergoing the open-air treatment is remarkable; in one case 7,600,000 were found per cubic millimetre. Dr. Ransome believes that the success of sanatorium treatment may to some extent be explained by its blood-making power—"a power which may even have to be pushed beyond the limits of perfect health." This theory is not out of accord with the explanation usually given of the *rationale* of open-air treatment—namely, that by it the resisting powers of the tissues are greatly increased.

The third essay is concerned with the "Principles of Sanatorium Construction," and a diagram of the plans of a sanatorium has been prepared by Mr. G. A. Bligh Livesay, F.R.I.B.A. The general scheme is a good one but we have not space to criticise it thoroughly.

The last essay is on the "Pure-air Treatment of Phthisis at Home." We agree with Dr. Ransome that the open-air treatment can be carried out more perfectly in sanatoriums than in most private houses but there are many persons who will not leave their homes; and also there are those who, having been educated as to the manner of life they should lead in a sanatorium, appreciate the advisability of continuing it on their return to domestic life. Dr. Ransome details the precautions which have to be observed and the steps which must be taken to carry them out.

This little volume will be found a most interesting one and we can cordially recommend it to our readers.

Nothnagel's Encyclopædia: Diseases of the Stomach. By FRANZ RIEGEL. Edited with additions by CHARLES G. STOCKTON, M.D. Authorised translation from the German under the editorial supervision of ALFRED STENGEL, M.D. London, Philadelphia, and New York: W. B. Saunders and Co. 1903. Pp. 835. Price 25s.

IT has recently been very forcibly urged that facilities for original and scientific research in clinical medicine are most inadequately provided for at our centres of medical education. Laboratory research proceeding hand-in-hand with clinical observations in the wards is an essential combination for the progress of medical science and for the solution of many problems in pathology which are of vital importance. In no field of medicine does a combined experience in laboratory and clinical methods constitute a more desirable qualification for practice or more richly repay the student who has availed himself of this dual method of research than in that branch of medicine which is concerned with diseases of the stomach and disorders of digestion. At many of the universities in Germany, France, Russia, and America the chairs of clinical medicine are occupied by professors who devote themselves to some particular branch of medicine and who attract to their clinics a large following of young qualified practitioners who give their time exclusively to research work in the laboratories and in the wards along the special lines of inquiry pursued by their chiefs, and in this way by the collective industry of a large number of workers a clinic such as that of Professor Riegel becomes a recognised centre for the acquisition and distribution of special knowledge. The clinics on the continent concerned with the study of the diseases of the stomach and of disorders of digestion include among others those of Riegel, Kussmaul, Ewald, Bouchard, and Pawlow; of these that presided over by Riegel is, perhaps, the most famous and has produced not only the largest harvest of practical results but the largest number also of distinguished investigators in the same field of research. Professor Riegel is a writer of no ordinary attainments: his powers of literary expression and of philosophic and logical reasoning place him in the front rank of medical authors of to-day, so that when we come to consider his unrivalled resources for the acquisition of knowledge on his special subject and his remarkable gift of literary exposition it is scarcely surprising that the great volume on the diseases of the stomach which he has contributed to Nothnagel's Encyclopædia is of the superlative degree of excellence which is universally admitted. It is greatly to be regretted that the failures and shortcomings of our own system of medical education make it impossible to produce teachers of the stamp and attainments of Professor Riegel and that our students and practitioners have to depend on the translation of foreign works for their sources of information. It was only recently that we reviewed in these columns a second edition of Professor Hemmeter's work on the same subject, a work which heretofore has occupied among us the position of the leading textbook on diseases of the stomach.

The duty of editing the translation of Professor Riegel's book has been entrusted to Professor Charles G. Stockton of the University of Buffalo and very excellently has the work been done. The literary brilliance of the original loses little of its polish in the English rendering and the few hiatuses in our knowledge which recent work has filled in and which the

far-sightedness of the author did not anticipate have been dealt with by the translator in adequate notes and additions, all of which can be readily distinguished from the original text by the use of brackets. The subjects which have been thus amplified include a description of the following conditions: periodic vomiting in children, acute dilatation of the stomach, achylia gastrica, and congenital stenosis of the pylorus, to mention only the more important. The contents of the volume have been arranged in the following order: in the first part, which comprises the general diagnosis and treatment of gastric disease, the methods of examination both physical and chemical are described separately and systematically and at the expense of some 150 pages. Then follow the treatment of the diseases of the stomach in general and the treatment by drugs, by physical methods, and by surgery in particular. The second part, which occupies rather more than two-thirds of the pages of the entire volume, is devoted to the consideration of the special diseases of the stomach. Each group of symptoms which is to be regarded as a type or as a special disorder is arranged in an independent section; the order of arrangement as regards pathology, etiology, treatment and other details is the same in each section. Each unitary section is completed by a very comprehensive bibliography.

Professor Riegel's book may be contrasted with Professor Hemmeter's work on the same subject in two respects. In the first place the latter author, as perhaps the leading authority on the physical methods of examination of the stomach, attaches more importance both for the purposes of diagnosis and of treatment to these expedients than does Professor Riegel who as a pioneer in the methods of chemical examination is naturally biased in their favour and loses no opportunity of infecting his readers with the same enthusiasm. In a second respect it may not perhaps be impertinent to contrast the two authors. While Professor Riegel's attitude of mind towards disease is one directed towards a process that of Professor Hemmeter is more of one which looks upon disease as a specific entity. Professor Riegel is not content with giving the disease a name: so far as possible he attempts to draw an accurate picture of the process which underlies it. This philosophic conception does not lend itself to a cut-and-dried method of classification and in the multiplication of possible pictures there is apt to be obscuration from the overlapping or superposition of images. The dangers which might arise from such a method of regarding disease might clearly prove fatal to a less skilful and brilliant exponent than Professor Riegel. However, by the occasional sacrifice of conventional classification he has emerged triumphant and by bringing his pictures into proper line and perspective he has produced a kaleidoscopic effect which shows clearly how one disease may merge insensibly into another without obscuring the central features which other authors accept as the distinguishing characteristic of specific entities.

It is, perhaps, open to question whether the author credits the nervous system with so important a rôle in the determination of gastric disease as indirect evidence and analogy warrant; for instance, in the pathogenesis of round ulcer of the stomach, the neurotrophic theory of Stockton hardly, in our opinion, deserves to be dismissed summarily as a theory which "throws no light on the subject." This theory suggests "that by the influence of some process analogous to herpes, to idiopathic hæmatoma auris, to Raynaud's disease, or to herpetic gangrene—some distinct and persevering nerve perturbation—we may best explain the recognised and unaccounted-for features of the clinical history." Professor Riegel was, we believe, the first observer to indicate the association of hyperchlorhydria and gastric ulcer, an association which is now almost universally admitted; in combination with Stockton's theory of gastric ulcer it certainly elucidates some obscure points in the etiology, such, for instance, as those of age and sex, which Professor Riegel seems unable to explain on his own hypothesis alone.

The weakest part, perhaps the only weak part, of this book is that which deals with dietetic treatment. This, especially when details of *menu* are entered into, is colourless and monotonous in the extreme. We could imagine that in many instances the dyspeptic patient would almost as soon submit to the inconvenience of his complaint as follow out the dietetic *régime* prescribed for him.

A Text-book of Chemistry for Students of Medicine, Pharmacy, and Dentistry. By EDWARD CURTIS HILL, M.S., M.D. Philadelphia: F. A. Davis and Co. 1903. Pp. 523. Price 8s.

THIS work is evidently written by a writer of considerable teaching experience who is alive to the importance of a sound knowledge of theoretical and practical chemistry to the medical student. It is not often that teachers are able to recommend to the medical student a book which covers the many sections of chemistry which bear directly upon medical science. Usually any attempt to make a book so wide in scope produces far too bulky a volume and one altogether outside the limitations of a handbook. Dr. Curtis Hill has succeeded in this task and as far as possible without sacrifice of details, though the plan of the work necessarily involves brevity. He gains space, for example, by the use of symbols instead of writing out the names of the elements. This method leads to some curious writing at times. Thus under the heading of iodine occur such sentences as "I was discovered in 1811 by Courtois, a Parisian soap boiler." Throughout the work the spelling is according to the American method which leads to further abbreviation. As illustrating the comprehensiveness of treatment and the way in which the author has adapted the book to the needs of the student of medicine it may be stated that the work is divided into the following chapters: Medical Physics, Chemic Philosophy, Inorganic Chemistry, the Carbon Compounds, Analysis, Incompatibility, Sanitary Chemistry, Toxicology, Physiologic and Pathologic Chemistry, and Clinic Chemistry. That all these departments of chemical science have been dealt with in the limits of this volume without serious omissions is an achievement upon which the author may be congratulated. The student of medical and chemical science will find this book very helpful.

The Histology and Patho-Histology of the Teeth and Associated Parts. By A. HOPEWELL-SMITH, M.R.C.S. L.D.S. Eng., L.R.C.P. Lond. With 495 Illustrations. London: Dental Manufacturing Company. Pp. 633. Price 25s. net.

IN many respects this book is unique inasmuch as it is the first time that a complete account of the histology and patho-histology of the teeth has been dealt with in one volume and in such an exhaustive manner. The contents are included under three headings, the first being the Histology of the Teeth and Associated Parts. In the initial chapter of this part Mr. Hopewell-Smith draws attention to what is a most important essential in the study of tissues under the microscope—namely, "careful preparation"—and he instances the discovery of the real nature and characteristics of Nasmyth's membrane as following on the employment of proper methods of preparation. A good idea of the character of the book may be gained from the chapter on enamel. The subject is considered under the following headings: General Characteristics. Enamel Rods and Interprismatic Substances, Curvatures of Rods, Supplemental Columns, Brown Striæ of Retzius, Lines of Schreger, and Enamel "Spindles." Each section is clearly described and well illustrated and the writings of different histologists are alluded to

and their views are placed in a clear, straightforward way before the reader. In the chapter on the pulp we perhaps see the author at his best and we are treated to a most complete account of the histology of this tissue. There is evidence here of considerable original research into the structure of the odontoblasts at the different stages of life and also into the innervation of the pulp. The ultimate termination of the sensory nerves, as the author remarks, "constitutes one of those histological puzzles which yet remain unsolved." Considerable space is devoted to discussing the question and the views of different writers are marshalled in review, the author himself expressing the belief that the nerve fibres "terminate in a basket-work of varicose fibres, embracing and often closely attached to the cell walls of the individual odontoblasts."

Part II. is devoted to the Histogenesis of the Teeth of Mammals, Fishes, and Reptiles, and Part III. to the Pathohistology of the Teeth and Associated Parts. The opening chapters of the latter are devoted to the pathology of the enamel, and reference is made to a condition not hitherto described in text-books—namely, nanoid or dwarfed enamel. In this condition the crowns of the teeth may be fully developed but present rough lustreless surfaces of a somewhat light yellow colour. In the cases investigated enamel was always present but greatly attenuated and stunted in growth. We are hardly in agreement with the author on the histology of syphilitic teeth. He remarks: "The surface is not absolutely smooth but contains pits which are filled with micro-organisms of a reddish-brown colour, thus indicating that caries is not in progress." In many cases of congenital syphilis seen in practice with typical-shaped teeth the enamel is devoid of pits and is good in structure. The description of syphilitic teeth in text-books is frequently incorrect and misleading. In the chapter on pathological conditions of the dentine the description of dilaceration as a developmental disease is open to criticism. "Dilaceration" at the outset is a bad term and the condition is the result of injury to the growing tooth and is in no way due to a developmental defect of the dentine papilla. The illustration, too, given of a "dilaceration" of the radicular region of a human canine we are inclined to consider as simply showing a tortuous root the result of crowding and in no respect a developmental error. By these criticisms and others which might be offered we wish in no way to depreciate the value of a book which is a most excellent contribution to the literature of medical knowledge. The printing of the book is good but is it not possible for expensive books of this character to be better bound?

LIBRARY TABLE.

Gynæcological Nursing. By NETTA STEWART. Edinburgh: Oliver and Boyd. 1903. Pp. 174. Price 2*s.* 6*d.*—This little book contains an excellent account of all that a gynæcological nurse ought to know. There are many points in which such nursing differs from that met with in surgical wards, and on these due emphasis is laid in this work. The author has been fortunate in her efforts to give sufficient prominence to those facts which are of special importance and yet not to leave out anything of value. In a future edition we would suggest that Miss Stewart should avoid the use of such terms as Henry's lotion and she should be a little less dogmatic in regard to some methods of treatment such as the administration of vaginal douches after perineorrhaphy and the use of the catheter in similar cases, points upon which surgeons are by no means in entire agreement. An index would considerably increase the value of the book. It is, however, a manual which we can strongly recommend to those nurses who wish to know something of this special class of work.

A Simple Method of Water Analysis. By JOHN C. THRESH, M.D. Vict., D.Sc. Lond. Fourth edition. London: J. and A. Churchill. Pp. 62. Price 2*s.* 6*d.*—The demand for a fourth edition of this little manual is evidence of its usefulness. The method described is especially designed for the use of medical officers of health and is based, of course, upon laboratory methods which are usually carried out with some detail. The author has in response to the request of several medical officers of health added a description of a simple form of distillatory apparatus for the estimation of the free and organic ammonia. Practically the same methods as are applied to the examination of a drinking water are applied also to the examination of sewage. Dr. Thresh's remarks on the significance of the results of analysis are admirable.

Matriculation Directory. September, 1903. London: University Tutorial Press, Limited.—This is a volume of the University Tutorial Series and will be found an excellent guide to anyone who intends to study for the examinations of the University of London. In addition to a University of London Calendar for 1903-04 directions are given as to the best course of study according to the nature of the degree which the student intends to take, suggestions are made with regard to suitable text-books, and the examination papers set for the last matriculation examination are printed, together with specimen solutions.

JOURNALS AND MAGAZINES.

Edinburgh Medical Journal.—The opening article in the November number is Professor D. J. Cunningham's introductory address delivered to the class of anatomy in the University of Edinburgh on Oct. 13th. It consists essentially of an interesting historical account of the growth of anatomical knowledge. Dr. A. Logan Turner of Edinburgh publishes a further instalment of his memoir on the Pathology of "Bone Cysts" in the Accessory Sinuses of the Nose. Dr. Henry Barnes of Carlisle writes on the celebrated Boerhaave of Leyden. Dr. Thomas D. Luke of Edinburgh discusses the action, administration, and effects of ethyl chloride used as a general anæsthetic. His opinion is strongly in its favour.

Scottish Medical and Surgical Journal.—Insanity and Alcoholic Excess is the subject of the first article in the November number. The author, Mr. John Carswell of Glasgow, considers that "it is tolerably clear that inebriety as it has been revealed by the operation of the Inebriates Acts is a type of mental disorder as definite in its origin, course, and general characteristics as any other form of disease." Habitual inebriety, according to him, is not a stage in the causation of insanity but is a form of mental disorder which as the law at present stands rarely presents symptoms of certifiable insanity. There are also articles on the Occurrence of Epistaxis at the Onset of Acute Rheumatism, by Dr. H. G. Langwill of Leith; on Protargol in Ophthalmic Practice, by Dr. Angus McGillivray of Dundee; and on Abdominal Sections, by Dr. J. M. Munro Kerr of Glasgow. In a short note on the Abdominal Muscles in Relation to Hernia Mr. J. W. Dowden of Edinburgh remarks that in cases of lax and protuberant abdomen much improvement may be effected by systematically exercising the abdominal muscles.

Mercy and Truth.—In one of the articles contained in the November number Dr. D. W. Carr of Julfa in Persia mentions that at the mission hospital in that place local anæsthesia produced by cocaine was resorted to in 61 operations performed in 1902; the operations included 39 for the radical cure of hernia and one abdominal section.

Journal of the Royal Army Medical Corps.—The November issue of this journal contains a useful article from the pen of Colonel J. Edward Squire, R.A.M.C. (Volunteers), on the

work of a Volunteer Unit of the Royal Army Medical Corps in Camp. This is a matter which, as the author points out, is beset with considerable difficulties and the plan detailed will be read with interest by all medical officers. The article is illustrated with a photoprint and plan of the Royal Army Medical Corps (Volunteers) Camp, London Companies, at Aldershot, 1903. Major C. E. Freeman, R.A.M.C., discusses for the benefit of officers and others proceeding on duty to Bermuda the geographical and other features of that colony. Hints on the kind of kit required are given and as many officers are married some points which may be useful to ladies are included in the article. The population of Bermuda consists, apart from the naval and military element, of 17,535 persons, of whom 6383 are white. Major Freeman concludes his interesting description of Bermuda by remarking that "there is much to attract anyone who is a lover of nature and the sea." Major W. H. Horrocks, R.A.M.C., has a long paper on the Bacillus Coli Communis as an Indication of Sewage Contamination of Water Supplies, and Lieutenant-Colonel S. F. Lougheed, C.M.G., R.A.M.C., some notes entitled "Further Cases of Perforating Gunshot Wound of the Skull."

South African Medical Record.—This colonial monthly journal is one of the most recent additions to the list of our contemporaries, having reached its eighth number in October. The original articles in this issue are on the Medical, Social, and Legal Aspects of Insanity, by Dr. T. D. Greenlees of Grahamstown Asylum; on Student Life 50 Years Ago, by Mr. F. Ensor of Port Elizabeth; and on Camp Fever, by Dr. J. E. Mackenzie of Kimberley. The leading article is on Hospital Scandals and their Lessons. It seems that "at the present moment a very bitter disagreement between the matron and the nurses under her control is agitating the Johannesburg Hospital." The new Somerset Hospital appears also to have established a reputation for internal discord. The *Record* is edited by Dr. W. Darley-Hartley and published at Lloyd's Chambers, Long-street, Cape Town. The London agents are Messrs. Baillière, Tindall, and Cox, Henrietta-street, Strand, W.C.

The Journal of Physiology. Edited by Sir MICHAEL FOSTER, K.C.B., F.R.S., and J. N. LANGLEY, Sc.D., F.R.S. Vol. XXX., No. 2. London: C. J. Clay and Sons. Nov. 2nd, 1903. Price 8*s.*—The contents of this number are as follows: 1. The Paralysis of Nerve Cells and Nerve Endings with Special Reference to the Alkaloid Apocodeine, by W. E. Dixon, M.D. This alkaloid is shown to lower blood pressure, produces vaso-dilatation, causes the heart to beat more rapidly, increases the automatic movements of plain muscle, increases reflexes, paralyses the motor nerve endings in voluntary muscle, and very readily paralyses nerve cells in the same way as does nicotine. 2. A Method to Demonstrate the Changes in the Vascularity of the Submaxillary Gland on Stimulation of the Secretory Nerves, by R. Burton-Opitz, with two figures in the text. It is shown that stimulation of the chorda tympani incited a blood flow which was from 1·7 to 5·6 times greater than the normal. Stimulation of the sympathetic fibres, on the other hand, led to almost a complete stoppage of the blood flow. 3. The Nature of the Physiologically Active Substances in Extracts of Nervous Tissues and Blood, with some remarks on the Methods of Testing for Choline, by Swale Vincent, M.B., and W. Cramer, Ph.D. The experiments of these observers show that there are two groups of substances in watery extracts of nervous tissue which when injected into the veins lower the blood pressure. One group is easily soluble in absolute alcohol and the other is nearly insoluble. The alcoholic solution contains two depressor substances: one of them has its effect abolished by atropine and the other has not. They have not found any choline in brain substance. 4. Investigations on the Proteolytic Enzymes of the Spleen of the Ox, by S. G. Hedin. In this article two proteolytic enzymes are stated to be present in the spleen of the ox; both have been found in two forms—combined with nuclein substances and not combined with nuclein substances. The enzymes are probably contained in the leucocytes of the spleen. 5. Atropine and the Hyoscyamines—a Study of the Action of Optical Isomers, by Arthur R. Cushny, M.D., with two figures in the text. The two substances are stated to act when pure in the same way and with equal potency on the central nervous system of the frog. Atropine possesses a more powerful stimulant action on the reflexes of the spinal cord in the frog than does hyoscyamine, but hyoscyamine is almost twice as powerful as atropine in its action on the nerve ends in the salivary glands, the heart, and the pupil. 6. On the Presence of a Proteolytic Enzyme in the Normal Serum of the Ox, by S. G. Hedin. 7. Contributions to Our Knowledge of the Action of Enzymes, Part I., the Influence of Electrolytes on the Action of Amylolytic Ferments, by Sydney W. Cole. The number also contains the Proceedings of the Physiological Society.

Looking Back.

FROM

THE LANCET, *SATURDAY*, NOV. 12, 1825.

LECTURES ON THE ANATOMY, PHYSIOLOGY, AND DISEASES OF THE EYE.

BY MR. LAWRENCE.

London Ophthalmic Infirmary, Moorfields.

LECTURE III.[1]

Physiology of the Eye-ball.

A question here arises, how these changes[2] take place. They are not produced by the immediate influence of light upon the iris; for if we direct a strong light upon that part, taking care that it shall not enter the pupil, no contraction of the aperture takes place. The iris does not move; the pupil is not altered, unless the retina be influenced.

If then, the motions of the iris depend on the retina, when the latter becomes insensible to light the pupil ought no longer to exhibit any change from variation in the quantity of light, and any degree of insensibility in the retina ought to be accompanied with a corresponding deficiency of motion in the iris. In general this is the case; but the phenomena of disease present some circumstances which are not reconcileable with this view of the question. In the first place, we must distinguish between the independent motion of the iris, and its associated or sympathetic action. The latter often continues, when the former is at an end. Sometimes the optic nerve is completely insensible in one eye, and light produces no effect whatever upon the iris of the diseased eye, if the sound eye be kept carefully closed; but if you produce motion in the iris of the sound eye, by varying the quantity of light, corresponding motion will be observed in the diseased eye.

Another circumstance is quite irreconcileable with the opinion which regards the action of light upon the retina as necessary to the motions of the iris. In some instances, not merely of partial, but complete amaurosis, the iris not only retains a degree of motion, but occasionally its movements are perfect. In amaurosis caused by hydrocephalus, when the retina is completely insensible, so that the patient cannot distinguish light from dark, I have not unfrequently seen, and pointed out to pupils in this Infirmary, a perfect state of the motions of the iris. The phenomenon in question is not confined to instances of that description.

These facts throw considerable doubt upon the received notions respecting the physiology of the motions of the iris, and on the usual explanation of that familiar phenomenon, the changes in the dimensions of the pupil.

[1] An excerpt only is transcribed.
[2] Contraction and dilatation of the pupil.

DR. OTTO SCHMIDT'S SPECIFIC TREATMENT OF CANCER.

AN ADDRESS DELIVERED BEFORE THE ABERNETHIAN SOCIETY AT ST. BARTHOLOMEW'S HOSPITAL ON NOV. 5TH BY H. JOSSE JOHNSON, M.B. LOND., D.P.H. CANTAB., FOLLOWED BY A DISCUSSION.

MR. PRESIDENT AND GENTLEMEN,—When less than three weeks ago I asked to be allowed to lay before the members of this society the notes of my observations on Dr. Otto Schmidt's specific treatment of cancer I hardly expected to have so early a date granted me as the present. This is, as you know, the evening set aside for your President, Mr. H. E. G. Boyle, to address you. He, however, most generously decided to postpone his paper in favour of the subject on which I am about to speak. I now at once beg to thank him for his most self-sacrificing action and to express the hope that my handling of the subject will not make him regret his generosity. I should also like to express the gratification I feel at being allowed in the first place to make my communication in my old hospital to St. Bartholomew's men. The Abernethian Society is an old friend. The first paper I ever perpetrated was read to its members many years ago. The subject then was the value of a knowledge of the German language for medical studies. My most recent experience has made me more sure than ever of the views I then held. It is just that knowledge and training which have enabled me in a comparatively short time to form a definite and settled opinion upon that question which is certainly the burning one in the medical world, the question which deals with the cause and successful treatment of cancer, or rather of the cancerous process. When it was proposed to me that I should go to Cologne and study under Dr. Schmidt and report upon the treatment which he was then initiating on the strength of a discovery he had made, you may easily understand I was most willing to go and considered myself very fortunate. My stay in Cologne was prolonged and as Dr. Schmidt put all facilities at my disposal as well as a great deal of his valuable time—he is in large practice as a consulting and operative surgeon—I think I may say I got a very thorough insight into the method and *rationale* of his treatment. What I saw and learnt I propose shortly to lay before you this evening.

There can be no useful purpose in discussing the various theories as to the causation of cancer here or now. The one most generally held amongst clinicians is the parasitic theory. It is upon this theory and the discovery by him of a parasite that Dr. Schmidt's treatment is based. It alone, therefore, need shortly be outlined. According to this theory the occurrence and growth of carcinoma and sarcoma are due to a living parasite, that is to say, a living parasite enters the body and there finds an anaplastic abnormal cell. Under suitable conditions the parasite irritates this cell to division and to produce new cells of its own kind. Into these new cells the progeny of the parasite enters and so the vicious circle is formed. The aggregations of cells, all of the same kind, form malignant growths, and wandering cells of the same kind carrying the parasite form metastatic deposits wherever they come to rest. The growths and metastatic deposits press upon, and destroy, the normal tissue of the organ in which they grow, but the prime cause of the growth, of the destruction of the normal tissue and of the eventual death of the sufferer is the parasite. The parasite is what we have first and foremost to combat and if possible to remove from or destroy in the body of the patient, for without the irritation, and this irritation constantly renewed, the anaplastic cell will not divide and increase. Unlimited growth of the tumour is only due to unlimited growth and multiplication of the parasite. That is, shortly, the parasitic theory. You will see that, according to this theory, any treatment to be successful must be anti-parasitic and not antitoxic, and therefore by some means anti-bodies must be introduced into the blood of the patient, that is, he must be actively immunised or else we must passively immunise him by injecting a serum containing anti-bodies ready formed, the serum of the immunised animal. This is the view held by Dr. Schmidt. He considered that the direction in which successful treatment must be sought was clearly marked out—namely, that a specific treatment was the only one. About the middle of last year (1902) after many years—nine or ten—of research, Dr. Schmidt succeeded in cultivating artificially a parasite hitherto unknown and at least more or less undescribed. It fulfilled most of the conditions necessary to prove its specificity. It was found in every malignant growth examined; it was capable of artificial cultivation in pure culture. In two cases—and I shall come to that point again—tumours were produced in white mice by injections of pure culture. Fourth, the same parasite was found in these tumours and from them was again cultivated in pure culture. Fifth, the parasite does not occur in benign tumours. As to point three, the difficulty of producing malignant growths in any animal is enormous if only pure cultures of the parasite are used. First, who can say which animals have the necessary anaplastic cells? And granting that such an animal were found we know that the parasite and the cell alone are not enough to cause the disease. In all these cases there is a third factor, which we may call environment. Yeast and sugar want the environment of warmth and moisture before the yeast can grow and the alcohol be formed. We all have lungs and we all have tubercle bacilli and pneumococci; but we do not all have phthisis and we do not all have pneumonia every day. It wants a certain environment besides. Given the anaplastic cells and the parasite, who can say what the environment of the animal must be in order that they may react and produce a malignant growth? Jensen's experiments quoted in the *Hospital* of Oct. 3rd by Mr. D'Arcy Power were not inoculations in the pure sense of the term, they were not inoculations of pure culture; they were implantations of growth—cells and parasite—and therefore they do not compare at all with the little white mice which were infected by the pure culture. Having settled these points to his satisfaction Dr. Schmidt felt compelled to commence the treatment of patients. I give it in his own words. He said to himself, "The most notable task of the physician is to cure. If I have found something which promises to be of therapeutic value to patients suffering from a horrible disease and being convinced as to the correctness of my observations it becomes incumbent upon me to put my knowledge to practical use, even before science has allowed that it fulfils all her strictest requirements. No cancerous person was ever cured even by the most beautiful theory and if I wait till all authorities have given their opinions much time will be lost and much suffering left unrelieved."

It is not my intention now to enter minutely into the appearances of the parasite, its mode of growth, or the parts where it is most abundant. Such descriptions without diagrams and photographs are useless and I have none to show you. Suffice it to say that both in appearance and character the parasite is very varied. Those who have studied the work of Russell in the *British Medical Journal* in 1890, or of Gaylord in the *American Journal of the Medical Sciences*, or the work of Schüller (1901) will know the various forms which the cancer parasite is capable of assuming. I have had the privilege of seeing all the forms which those authors describe and which are various forms of the parasite produced in pure culture. Plimmer found them in 1138 out of 1278 fresh malignant tumours which he examined. That by artificial cultivation it is possible by varying the conditions under which they are grown to produce these forms proves to my mind the correctness of Gaylord's observations. At what point he was led astray by a false analogy need not detain us now. That these are different forms or phases of the same parasite has been proved beyond question. Dr. Schmidt isolated one single parasitic cell and by artificial cultivation under varying conditions of light, air, moisture, and warmth, produced all the other forms from it. The *rationale* of treatment is twofold. Firstly, active immunisation—that is, by the injection of cultures, 14 to 21 days old, which have been first killed by the application of heat (65° C.); and, secondly, passive immunisation, by the injection of the serum of immunised animals, sheep and horses, into the subcutaneous tissues of the patient. I shall bring to your notice accounts of cases which have been treated by these methods, by each of them alone and by both in conjunction. The potency of the serum of the immunised animals has not yet been brought to its highest point. It is a procedure which takes time and is expensive. The height of the grade of a serum depends largely upon the amount in bulk of the

virulent culture which the animal can absorb. Ordinary injections contain a quantity of bacterial envelopes which are simply unnecessary ballast and retain much of the toxin. To overcome this difficulty attempts have been made to produce an extract of the cultures and so to lessen the bulk of the injection by increasing its concentration. Buchner's method was to rub the mixture to a fine paste with Kieselguhr and to pass it through a dense filtrating material under a pressure of 500 atmospheres. Professor Allen Macfayden on Sept. 23rd last at Cassel showed that the toxins can equally well be extracted from bacterial and other cells by first subjecting them to a very low temperature, —190° C., by means of fluid air. This renders the bacterial envelopes friable and their contents are set free. It will now be possible by using this extract to bring animals up to a higher grade of immunity and also more quickly than before he made his most interesting experiments.

Treatment.—It is usual to commence the treatment of the cancer patient in a very mild form. On the first day $\frac{1}{10}$th of a milligramme of the sterilised culture is given and on the second day one tenth, on the third day two-tenths, and on the fourth day one milligramme. But no hard-and-fast rule can be laid down. These doses are usually large enough to produce the characteristic reaction. The sterilised culture is used suspended in $\frac{1}{2}$ per cent. solution of carbolic acid. The serum has to be used in quantities of 20 centigrammes but as the potency is increased the quantity will be diminished. It is immaterial in what part of the body the injection is made so long as there is sufficient loose connective tissue. It is not advisable to inject into or near the tumour itself.

Results of active immunisation.—The most constant and most striking result of the injections into the body of the cancerous patient is a specific reaction in the tumour and infected parts. This specific reaction which I have observed and watched in a large number of cases I shall describe more minutely presently. Injections of the cultures into a healthy subject or into one suffering from any other disease produced no symptoms whatever beyond the pin-prick of the hypodermic needle. But if the cancerous process is in the body then the specific reaction is produced whenever there is any recuperative power in the blood of the patient. After the second or third injections and generally eight or ten hours afterwards there is a general sense of malaise. The temperature rises more or less: most often the evening temperature alone is raised but sometimes the morning temperature is also affected. In a few cases the highest temperature is found in the early morning hours. The rise may occur suddenly or it may go up by daily increments to 102° F., then it falls to the normal in two or three days. The primary rise of reaction may go on in spite of the discontinuance of injections as soon as the temperature rises at all. Patients whose blood is already poisoned by toxins—cachectic patients—often do not react at all. Their blood, owing to the amount of toxins already present, is incapable of being roused to the manufacture of anti-bodies; should there be a reaction it is a sharp rise to 103° or 104°, ushered in with rigors. Local signs and symptoms are noticed about the same time as the first rise of temperature. The constant symptoms are, firstly, swelling of the tumour and of any metastatic deposits or infected glands; secondly, pain in the parts or increase of pain if such were previously present: and thirdly, tenderness of all affected parts. As you will see from this description the specific reaction is, in fact, an inflammatory process with all the attributes of such a process—redness, swelling, heat, and pain. One or other of the attributes may be masked or wanting, according to the site of the trouble. Thus redness does not show itself where the skin is not involved but local rise of temperature is often demonstrable where deep-lying structures are affected. In enclosed primary tumours and metastatic growths pain or an increase of pain is noticed eight to 12 hours after the second or third injection. It is generally of an aching or boring character, or if the growth is on, or near, a large nerve trunk it is described as shooting or lancinating. The examining hand is often led by the pain indications to find metastatic glands and deposits where the most careful examination failed to detect them previously. All affected parts at the height of the reaction are so tender that we may speak of a high grade of local hyperæsthesia. If the skin is affected the pressure of the clothes is described as unbearable. The objective symptoms closely follow the commencement of pain. The deposits swell, both to feeling and to mensuration. The consistence becomes firmly elastic, especially in small and medium-sized tumours. Those with more or less of a capsule give almost a sense of fluctuation. Infiltrating forms feel softer than previously but not elastic. If the skin is infiltrated there is inflammatory œdema. All parts of the tumour do not show these changes equally. The younger the growth the more marked is the reaction. The oldest parts show least change, often none at all in the earlier stages. The limits which clinical examination had marked out as the confines of the growth are exceeded in all directions. There is frequently a zone of redness two or three centimetres broad ending in a sharply defined border all round. Sometimes these reactive changes run out in tongue-like processes or bring to notice a band of infiltration leading to infected glands. If the skin is involved in the process the latest attacked parts show reddening and œdematous infiltration. Sometimes redness extends into the neighbouring tissues when the reaction is very violent.

The activity of the reaction varies very much in individuals and diminishes as the patient becomes immune. As far as can be told at present closed carcinomata react more violently than do those which are free or consist of breaking-down cells. Cachectic patients react hardly at all, and when I say cachectic patients I mean those who are suffering from the cancerous cachexia properly so-called, not those who on account of œsophageal or gastric cancer are suffering from starvation cachexia. These last react freely and well. 29 cases have been treated sufficiently completely for conclusions to be drawn from them. Nine of these were of the uterus, eight of the breast, three of the ovary, two of the stomach, three of the tongue, two of the intestines, one of the mucous membrane of the cheek, and one of the thigh—a sarcoma of the femur. For diagnostic and other purposes over 140 single observations have been made and in all the 140 the reaction was positive. It was also positive in 28 out of the 29 that I have just mentioned. The exception often proves the rule and this one offers a most striking proof of the specificity of the reaction and the value of injection for diagnostic purposes. It was that of a lady, aged 73 years, who had been ill for 15 months. There was a history of a hard tumour in the abdomen and ascites. The diagnosis of inoperable carcinoma had been made. Paracentesis was performed for the first time in August, 1902, the second was performed in January, 1903, and the third in April. A few weeks after the third paracentesis and when the fluid had again begun to accumulate in the abdomen the patient came under Dr. Schmidt's treatment. The state then found was in the abdomen: above the inguinal region there was a slightly moveable tumour of the size of a goose's egg. The abdomen exhibited a coarse wave of fluctuation. The limit of dulness showed this to be free fluid. The general state was bad: pain in the gastric region and great emaciation. On this finding the previous diagnosis of inoperable carcinoma was confirmed and injections of sterilised culture were commenced. Contrary to expectation there was no reaction, not even the faintest, although inside 14 days the quantity was raised to six centigrammes or six times the maximal dose. Therefore Dr. Schmidt altered his diagnosis and gave his opinion that it was an innocent and not a malignant growth. He did not hesitate to operate and at the operation a large cyst of the right ovary was found which was everywhere adherent to the anterior abdominal wall from the sternum to the hypochondrium. On the inner side of this was a group of small and medium-sized daughter cysts. This group remaining tense when the main cyst collapsed on paracentesis formed the small fixed tumour. The adherent cyst walls—not the mother cyst shrunk on itself—gave, when partially filled, as found on examination, every sign of free fluid. It was possible to remove the tumour completely. It was innocent in character in every part and the patient left 16 days afterwards cured. She is now well and has put on one and a quarter stones in weight. This was the exception. The remainder of the cases were, according to all clinical and frequently also microscopical evidence, undoubtedly malignant in character. The greater part were recurrences after one or more operations. Only one of the cases was sarcoma; the rest of the cases were carcinomata. I may say that this evening I shall only mention such cases as occurred externally. Carcinoma of the uterus, of the œsophagus, of the stomach, and so on react in exactly the same way but any descriptions one gave of them might easily be looked upon as pious self-deceptions. Therefore I have chosen cases only which I have seen and where the external signs were easily observed. To illustrate the similarity of reaction in the two

main classes of malignant growths I shall quote first a case of carcinoma and then one of sarcoma for comparison with it merely for the sake of pointing out the reaction. Mrs. H., aged 52 years, declared that immediately after a blow on the right breast in November, 1897, she noticed a small lump which grew until Feb. 7th, 1898. It was diagnosed as carcinoma in von Bergmann's clinic, in Berlin, and the breast and axillary glands were removed. In July, 1898, a further operation for removal of the supra- and infra-clavicular glands was undertaken. In March, 1898, the patient got a blow on the right forehead and "a boil" formed, as it was called by the patient, which on healing left a knot of the size of a bean. This was held to be a sebaceous cyst when the operation in July was performed as well as in further operations in November, 1902, and February, 1903, for the removal of recurrences of original growth *in situ*. It had now grown to the size of a walnut and in June, 1903, when a sixth operation for removal of recurrence of original growth was performed it had attained the size of an orange. Bergmann himself now pronounced it to be a metastatic deposit and gave a very unfavourable prognosis if he should operate. The husband was informed that two months would see the end. The operation was declined and she came almost directly afterwards to Cologne. On July 1st the last operation wound was not yet closed; there was no local recurrence and no glandular affections were to be found. On the upper right forehead there was a smooth, hard, evenly-rounded swelling three and a half inches long sagitally, two and a half inches broad, and rising to a height of five centimetres—that is to say, two inches, above the surrounding scalp, measured vertically. The consistence was everywhere equally hard, like a fibroid. The colour of the skin over the tumour was natural. Further behind and to the left was another knot of the size of a broad bean. The injections were commenced on July 30th. Although the temperature rose directly after the first injection the local reaction showed itself first on the fourth day. This is the temperature chart.

Date.	Amount of injection (gramme).	Mouth temperatures.		
		Morning.	Midday.	Evening.
June 29th, 1903.	—	—	—	98·4°
,, 30th, ,,	0·00002	—	—	98·9°
July 1st, ,,	0·00004	98·7°	—	99·2°
,, 2nd, ,,	0·0001	98·7°	99·1°	99·5°
,, 3rd, ,,	0·00015	98·2°	100·2°	100·0°
,, 4th, ,,	0·0002	98·4°	99·3°	99·2°
,, 5th, ,,	—	98·3°	98·4°	99·3°
,, 6th, ,,	—	97·6°	98·0°	98·6°

You will see the temperature was taken before the injections were made and it was perfectly normal. $\frac{3}{10}$ths of a milligramme were injected on the first day, $\frac{4}{10}$ths of a milligramme were used on the second day, and on the evening of that day there was a slight rise of temperature and that rise continued gradually as the injections were raised. When they were discontinued the temperature fell again to the normal in two days. But the patient, who previously had little or no pain, had on this fourth day not a moment's peace. In the region of the breast and under the arm the pains were aching and drawing in character, and in the tumour itself and in the right side of the neck shooting and lancinating. On July 4th, when the height of the reaction was present, the measurements were about one centimetre larger in every dimension; the consistence of the tumour was sub-elastic, the lightest touch was extremely painful, and the skin over it was tense and very red, so that it looked like a red polished ball. The redness extended two fingers' breadth into the surrounding skin of the scalp and forehead in all directions. The smaller tumour was enlarged, red, and tender. The part of the scalp between the two was not altered in the least. In the supraclavicular region and lying on the nerve plexus was a soft flat gland of the size of a hazel-nut, very tender, and touching it produced lancinating pains in the arms. There was a second enlarged gland in the infraclavicular fossa. On the sixth day the reaction was finished and the pain had gone and the tumour began to decrease in size. Later, at the beginning of last month, Oct. 6th, the glands had become perfectly hard and the pain from their contraction, especially the one on the brachial plexus, became bad and constant and the patient begged that they should be removed by operation. This Dr. Schmidt undertook to do and I assisted him. It was done on Oct. 10th. Two of them were found to be only small, but very hard, masses of connective tissue bound firmly to the surrounding part by strong fibrous adhesions. The other was undergoing degeneration. I shall refer to this again later. When I saw the forehead tumour for the first time it was about one-third bigger than when I saw it for the last time on Friday, Oct. 30th. It had steadily decreased the whole time and the patient herself was perfectly well except for the pain in the arm. She was cheerful and putting on flesh and was going on as well as any patient could wish to. She has attained such a degree of immunity that seven centigrammes of the culture can be injected without any reaction taking place at all. Now, by contrasting the reaction in the two cases—that is to say, that case with the sarcoma—you will see practically no difference. She had been treated with the Roentgen rays, and disarticulation of the thigh had been proposed and refused. The tumour was on the front and inner side of the thigh extending longitudinally over the whole middle third of it. The circumference of the affected leg, taken over the tumour, was—above, 24 inches; middle, 22½ inches; and below, 19¼ inches. To make sure that future measurements should be taken at the same place lines were drawn by means of a tape on the skin with a stick of nitrate of silver. The treatment began on July 22nd, when $\frac{1}{10}$th of a milligramme of culture was injected. On account of the increased pain the dose could only be gradually increased and consequently only the very slight rise of temperature in this case must be probably ascribed to that cause. Her temperature never rose above 99·1° F., but nevertheless the curve of evening temperature showed very clearly how the temperature did rise during the injections, and then when they were discontinued it again fell to normal two days afterwards. The pain in the tumour was much increased and the local rise in temperature was very marked. Measurements were taken at the height of the reaction and they showed an increase of two centimetres in all three measurements. At the end of the sixth week of treatment they had gone back three centimetres, so that the sarcoma had decreased in six weeks instead of increasing. The local processes of reaction are not confined within the limits of examination. These limits frequently are over-stepped and you find glands and metastatic deposits which previously defied the most careful search. This can only be explained by supposing that every tissue reacts to the specific irritation. There is, further, a zone of inflammatory œdema which is referable to an immigration of quantities of leucocytes into the surrounding tissues. This is only an exaggeration of the process found in the parts around every cancerous growth. In the case of one gland which was excised—in the carcinoma case—this immigration was well marked in microscopical sections which were cut. The other two showed no cancer cells. This one showed in the centre a few remains of infiltrated cells undergoing fatty degeneration and pressed upon by the surrounding fibrous tissue. But all round the gland there was a zone of leucocytes showing that reaction was still going on. Complete certainty as to the process can only be obtained by microscopical examination of strips of tissue removed from the parts during the height of the reaction. We obtained such material whilst I was there; it is being hardened and will be cut shortly. I hope to make a further report upon this point. In open growths the local processes of reaction run a different course; the most striking points are the drying up of the secretion and the diminution of the purulent discharge. When on the surface and so exposed to the drying influence of the air a crust can be noted on the third or fourth day of injection. This scab is not only dried secretion but includes a superficial dead layer of tissue. An accumulation of fluid is formed beneath this and is cast off. A new scab forms, this is cast off like the other; and so the process continues until the healthy tissue is reached on which the scarring proper can take place. In body cavities and moist parts, such as the mouth, the corresponding tissue is cast off in gangrenous pieces. This was illustrated in a case of cancer of the tongue which was in a very advanced stage. Early in the disease no definite diagnosis was made and it was so far advanced when recognised that operation was impossible. The anterior part of the tongue and the frænum were largely

infiltrated. The growth was covered with a whitish stinking secretion. The mouth was swabbed out with hydrogen peroxide and anæsthetising powders were given to allay the pain. On account of the swelling of the tongue the minute dose of $\frac{1}{500}$th part of a milligramme of culture was used and only very gradually raised to $\frac{1}{10}$th of a milligramme, which was the highest dose she has had up to now. There was a decided reaction and an undoubted healing tendency was observed. After a few days the slimy coating disappeared and pieces the size of a pea were cast off. A line of demarcation was visible between the healthy and the inflamed parts. The pieces were first blue-black and then greyish and then fell off After 14 days' treatment there was no suspicion of foul odour in the breath or from the tongue and that without using any disinfectants. This casting-off of parts was only at the edges where the tissue was already profoundly affected. The compact parts of the tongue showed only redness and swelling. Having now described the reaction which takes place in cancerous growths when sterilised cultures of the parasite are injected I wish to draw your attention to the value of the reaction as a fresh proof. I have mentioned that this parasite is the primary cause of malignant growths. It is the interchangeable relationship between the two which, to my mind, furnishes this proof. If the injection of minimal doses of a culture into subcutaneous tissues of the cancerous patient, far from the seat of the tumour, causes an inflammatory reaction in the growth which extends to its remotest parts and in which every nodule and metastatic deposit and every infected gland take part, and if only malignant tissue answers to it (and malignant tissue always does and healthy tissue never does) then the injected material is specific for the cancerous process. Unless we deny the facts which lie at the foundation of all serum therapy we must accept the relationship between the parasite and the growth, and this interchangeable relationship can only be one of cause and effect; the injection and reaction of the parasite on the growth must be cause and effect.

The healing process.—The reaction, then, is of an inflammatory nature, confined to the cancerous parts, more or less acute according to the newness of the growth and the condition of the patient. It is of short duration, a few days only. A chronic state of inflammation can be induced by setting up reactions at short intervals or by raising the injections gradually but without pause. In this last procedure the local effects and the pain are less but the final result is the same. The inflammatory process is not enough in itself to cause retrogressive change in the growth or to check proliferation of the cancer cells. The immigration of leucocytes is necessary for the destruction of the parasite. The anti-bodies can only weaken the parasites. For their complete destruction alexins are necessary *in vitro* and the leucocytes *in vivo*. To be able to produce the inflammatory process in the very part we wish to attack is therefore most important. Dr. Lovell Drage pointed out the importance of leucocytosis in such cases when speaking at the British Medical Association meeting in Swansea last July, and he had previously published his experiences in trying the effect of injections of cinnamate of sodium in producing leucocytosis. In the treatment I am describing this leucocytosis is produced and exactly in the parts where it is wanted. The leucocytes finish what the anti-bodies have begun. By the injection of serum from immunised animals the anti-bodies are introduced ready formed. If used by itself there is no reaction of the same local kind as there is with the cultures. A few cases where the serum has been injected into the tumour itself while in a state of inflammatory reaction have yielded very good results.

Retrogressive changes.—Such tumours as have been arrested in growth very soon begin to degenerate. If the growth of the cancer at its edge be very sluggish it may, without any treatment at all, show cicatricial changes near the centre and we may sometimes speak of partial cicatrisation in its oldest parts. The specific treatment greatly hastens these changes by reactive inflammation. In contradistinction to the natural cicatrisation it is not the central parts which show change but the youngest parts at the periphery of the tumour and often in several places at the same time. Changes often occur throughout the mass and the immigration of leucocytes assists in the degeneration of cells and absorption of the products of degeneration. This is the process which nature uses when she acts for the removal of the foreign or dead tissues in our bodies. As the result of any inflammatory process for repair, scar tissue is formed and it is the same in this treatment—a mass of cancer cells is absorbed and scar tissue adequate to the tumour is formed in its place. These strands of connective tissue often give rise to displacement of neighbouring organs or tissues. They may press upon anything they are near and do produce at times unpleasant consequences. The following two cases exemplify this healing process and also the effects of scarring. I have taken two because they are specimens of another point. The first was treated by active immunisation (cultures) and the other by passive immunisation (serum) only. A woman, aged 52 years, noticed that in July, 1902, her left breast began to get larger and heavier. In October it began to get firmer also. In February, 1903, it was pronounced to be inoperable cancer. The state in April, 1903, was as follows: in the left breast was one large firm tumour, in which six or eight lumps could be distinguished. The skin was adherent to the tumour all over; the tumour was immoveable on the ribs. You will perceive that it was an encephaloid carcinoma and not a scirrhus—a soft and not a hard growth. I draw attention to this distinction because in some cases scirrhus has been known to undergo change into fibrous tissue, especially after ovariotomy; but such a change as that is not met with in an encephaloid tumour. But the same change was produced in the soft growth as is described as occurring in rare cases in the hard one. The circumference of the breast was 44 centimetres from above downwards and from left to right 24 centimetres. Reaction came after the eighth injection of two and a half milligrammes. It was only of a slight intensity. Later during the progress of the treatment very considerable reactions took place and were produced for observation purposes by raising the dose of injection. During the remaining time the chronic inflammatory state of the whole mass has been kept up. The whole skin was red, in parts patchy, and considerably œdematous. As far as the redness extended there was local rise of temperature. The pain in the breast in the first months was rather bad but never so violent that anything beyond cold compresses had to be used. In the third week changes took place which could be looked upon as healing processes. The gland decreased to a small nodule of connective tissue; the breast tumour lost its knobby look and was smaller. The breast was softening but not so much as to give a sense of fluctuation. The part of the breast which was hard was about four and a half inches broad; it became harder and smaller and at its lower part a deep sulcus was formed above the nipple. And now after six months the case looks as follows. Round the nipple is a small ring of hardness, certainly not more than the width of my finger. The nipple is retracted and drawn in by the connective tissue. I wished last Friday, Oct. 30th, which was the last time I saw her, to obtain some dimensions for comparison with those I gave previously, but it was impossible for the simple reason that there were no dimensions to be obtained, the whole breast was as flat with the surface of the rest of the skin as it was possible to be. The skin over it was deeply wrinkled and below was a strong band of connective tissue which extends from the sternum to the angle of the scapula. This fixes the wrinkled skin firmly to the chest wall. It has drawn the right breast across the middle line and hinders the movements of the left arm and movements of respiration. Bodily and mentally the condition of the patient is good; she has gained 17 pounds in weight and she resumed her occupation four months ago. The case was shown several times during the period of treatment at the meetings of the Cologne Gynæcological Society; for the last time on Oct. 21st, when I was present, and a large number of medical men were able to control and to observe the changes which took place. The second case is another example of the ill-effects of this scarring which takes place. It was a case of cancer of the uterus which had been removed. It was undoubtedly a case of epithelioma and there was recurrence along the left broad ligament. After the mass of the cancer had disappeared constipation set in and colotomy had to be performed in the left inguinal region. And although the patient did very well from the colotomy she suddenly developed uræmic symptoms a week ago. A post-mortem examination by an independent authority has been promised. The case shows the ill-effects of connective tissue contractions. This case, unlike the last, was treated by serum and not by cultures. But there is one point which is of comfort in these inconvenient cicatrisations and that is that when you have

nothing but fibrous tissue to deal with surgical interference is comparatively easy, and very often a slight operation will relieve what could never have been touched if it had been cancer.

What can be considered as the relative value of active and passive immunisation processes? At present it is uncertain. The impression gained is that the injections of serum alone, if energetically carried out, are enough to inhibit the growth of the primary tumour and to prevent the formation of metastatic deposits only temporarily. The serum has the effect of improving the sufferer's general state, but it has the drawbacks of all serum injections, erythema, pain in the back, in the kidney region, although as yet albuminuria has not been noticed, such as occurs for instance after the injection of tetanus serum. The unit value of the serum will have to be much raised from what it is at present but this is merely a matter of time and the treatment is young. It is possible that more suitable animals than those used—sheep and horses—may be found. The more nearly the animal is related in the animal kingdom to man the more perfect the serum will be, so perhaps later we shall use apes. Nor is the unit of potency of the serum settled because animals are not killed by the culture. They only have a rise of temperature, so the unit cannot be measured as in the case of diphtheria and other antitoxins. The excessive formation of fibrous tissue in the place of the growth gave rise to the idea in Dr. Schmidt's mind that it might be lessened by the injection together with the serum of the cytotoxin related to the growth. It would thus accelerate the retrogression of the tumour. For this purpose growths of various kinds had to be obtained, mashed up, and injected in suspension into animals. But here a difficulty arose. Dr. Schmidt's colleagues refused to let him have the growths removed by the knife and when I had feed the attendant to have a growth the operator threw it into the fire rather than that the attendant should have it and hand it to me. It was not until I applied to my friend Mr. D'Arcy Power that we could get any material at all. But he took great trouble to procure and to send it to Cologne and now I hope experiments will be possible. That cytotoxins unaided should have any effect upon the malignant process is very doubtful indeed but some such claim has been made. We must remember that all cytotoxins which have been active have been produced by fresh, living, functioning cells—spermotoxin, nephrolysin, and so on, will recall this to your minds. The cells of a malignant tumour which we are able to incorporate are for the most part more or less degenerate; only an infinitesimal number of the outposts or newer cell growth can be said to possess the amount of activity required. But as the specific cytotoxin induced by a cell depends upon its contents and not upon its form the best serum we could expect to produce would be one dissolving fat and colloid material. This might possibly be used for hastening the dissolution of the old and played-out cells, but it would have no effect on proliferating cells; at least, it is highly improbable. If any effect has been brought about I think it is due to the anti-bodies produced in the intermediate animal by some of the parasites being incorporated unintentionally with the suspended cells when they were introduced. There is one fundamental point which is not nearly sufficiently insisted upon when considering the treatment of cancer but which should always be kept steadily in mind and it is this, that two factors are necessary for the complete removal of any malignant growth; firstly, the arrest of the malignant process and, secondly, the removal of its effects—the tumour. Suppose the outward and visible signs are removed by the knife, by caustics, or what not, is it not our sad experience that some proliferating cells are left behind and that recurrence is the rule? We can never speak confidently of the cure, but if by any means the cancerous process can be stayed and its cause removed we can begin to talk of cure, and the tumour is no more a foreign body or an innocent growth. Nature alone will probably deal with it efficiently. These retrogressive changes take place as soon as the stimulus to fresh growth is withdrawn. Even the youngest and most active cells on the border lose their power of proliferation and cannot implant themselves elsewhere. We may say, then, that the arrest of the cancerous process plus the removal of the growth would be a cure of cancer. But it is by no means the cure of the individual case. This will depend upon the extent to which important or vital organs have been destroyed or infiltrated. When considering individual cases we have three factors. Probably the most practical use of this treatment will be as an immediate sequence to operation to destroy the remaining parasites and cells and to immunise the patients from further attacks. Its value for diagnostic purposes I have referred to. For the preventive immunisation of those predisposed by hereditary taint or those who are nervous it might also be used with advantage. Most cases of cancer partake of a chronic ailment and the period over which treatment must extend is necessarily protracted. The patient has much to bear and at times the patience of attendants is heavily taxed. The practitioner's best help is good nursing and in this respect we in England, and especially at St. Bartholomew's Hospital, are far before other countries. It is impossible that such changes as I have described should take place in the body of the patient without his general system and feelings being profoundly affected, but when the sufferer sees friendly, willing, and, above all, confident faces around him his trust and hope are strengthened and he gathers courage to bear the pains which are necessary for his successful treatment.

You will have noticed that I have been very careful to speak always of the treatment of the cancerous process and that I have never in connexion with Dr. Schmidt's name, or what I have described, referred to this treatment as a cure of cancer. That or any talk of cure must be left to the lapse of time which proves all things. Nevertheless, it does not seem too much to assume a favourable attitude when in most cases treated up to the present, and in every case where the reaction was satisfactory, it can be demonstrated after five or six months' treatment that the original growth and metastatic deposits which were clearly present have, to say the least, not increased; that no further deposits have formed; and that the general body-weight has increased and the general subjective state of the patient has improved. That the treatment has something to do with this arrest will, I think, be granted. To argue coincidence for an unbroken series of cases such as I have seen would be straying beyond the limits of probability. One thing is certain, the surgeon should remove every malignant growth and every metastatic deposit so long as the danger of the operation is not too great. On the other hand, Dr. Schmidt's experience when treating absolutely inoperable cases—and he has had no others—is so favourable that he would not hesitate to use it in all these seemingly hopeless cases. But you will agree that such are not ideal or even, so to speak, thankful cases for treatment. In the future I am convinced that the treatment will be employed as a prophylactic immunisation immediately after surgical operations for the removal of malignant growths and it is when it has stood the test of time that we shall be able to speak, confidently I hope, of a cure for cancer.

Mr. BOYLE, the President, said that the society should feel proud indeed that the discovery of that form of treatment for cancer, should it eventually prove successful, was made known for the first time in England before its members. In the name of the members he extended to Dr. Johnson the cordial thanks of the meeting. There were so many of the teaching and visiting staff present that it would be an impertinence of him to discuss the paper; he would leave it in more competent hands.

Mr. A. WILLETT said: When I received the courteous invitation of the society to be present to-night my sole intention was to come as a silent visitor and to learn. And even now I rise only because it seems essential that someone should just set the ball rolling. Your President has said justly that the bringing of this subject before the society is a historical fact and it is remarkable that this society should have had two historical events in its existence. It probably is known to but very few here that, I suppose some 50 years ago, perhaps longer, the late Sir James Paget came here and for the first time in the world demonstrated the presence of the parasite of trichinosis. I should not venture, of course, to come here to speak upon what I may call the merits of this most instructive paper. I am, as it were, an old hulk. You, gentlemen, I may liken to the torpedo catchers; you are keen and anxious to take advantage of anything and everything that may help you in the pursuit of your professional careers. If I had any feeling on the matter I might almost say it is one of jealousy. I happen to be President this year of the Royal Medical and Chirurgical Society, and therefore I should have been justly proud if this paper had been read before that society. But whilst I say that I yet say that Dr. Johnson would

have had a very much smaller audience. There were one or two points that occurred to me in the course of this paper which made a very deep impression. The first was the statement that this serum will only react upon the cancerous patient. It may be injected, we are told, and it has been tested over and over again, upon healthy subjects without producing the least reaction. That, I venture to think, is perhaps the most notable feature of the whole subject. We therefore now have a test of whether or not a patient is suffering from malignant disease. One other point, which was only just incidentally mentioned at the close of the address, also occurred to me—namely, why should not the surgeon as soon as he has removed a growth and found it to be cancerous proceed at once with this treatment? Another point is—and I would like to ask Dr. Johnson his views upon it—namely, why this serum should not be introduced before the patient is operated upon. All surgeons know how almost impossible it is to be sure of the extent and limits of any cancer. As Dr. Johnson himself said, one of the peculiar features of this serum injection is that all tissues which are infected at once react. Well, we often find great difficulty in feeling at all positive as to whether in an operation we have removed the whole of the disease; if then we can have some reliable indication before the operation where and to what extent the tissues have become either locally infiltrated or the disease has become disseminated I think it would be of immense surgical and clinical importance. It was only that others who are much more capable of speaking on the subject should not delay that I ventured to say a few words in opening the discussion.

Dr. LOVELL DRAGE said: I was very much interested in one of the last remarks which Mr. Willett made. I have not been treating cancer on the lines of Dr. Schmidt but I have been working on the treatment of cancer by trying to determine the different therapeutic values of the compounds connected with cinnamic acid and cinnamate of sodium. A patient operated upon nearly three years ago was kept under treatment one month before the operation and for two months afterwards. Of course, it is yet early days to talk about recurrence but I may say I did no Halstead's operation. I simply removed the breast after the manner I had been taught by Sir Thomas Smith many years ago—simple removal. I could feel no glands certainly. The patient remains at the present moment absolutely well. She has put on flesh and she is able, and has been able, to carry out her duties ever since I operated upon her three years ago. She was laid up for three weeks. I have progressed materially since those days. As the gentleman who read the paper stated, I have been at work lately during the last eight months injecting solutions of cinnamate of sodium and I have obtained results very similar to those which you have heard to-night, only I have no German clinic and no help such as Germany provides for its workers. I have to trust to the more natural methods of observation and what I can do in a casual way. I have been very much interested, naturally, by the paper, and it is very curious how very much the reaction of this serum corresponds with the reactions of the latest solution I have been using. It is a weird chemical production, but I may say roughly that it is cinnamic acid with an alteration in the arrangement of the molecules of the substance. Organic chemists know very well that you may have exactly the same number of molecules in an organic substance and that by altering the arrangement of the molecules you get different therapeutic reactions. Since the meeting of the British Medical Association at Swansea I have elicited the sympathy and coöperation of our friend Dr. Lewis Jones and we have obtained some very remarkable reactions. We have had two patients whom he has kept under the x rays for five months and I have since been treating them. The reactions produced by my solution have been practically the same as those produced by the serum of Dr. Otto Schmidt. In fact, I should say that in one case—and I think Dr. Lewis Jones will support me—the reactions were even more violent and the inhibition of the growth was more rapid. I only mention these facts to stimulate, if possible, a little wholesome spirit of inquiry amongst the members here present. It is impossible for me to carry out the work quickly with the means at my command. Chemists working at the strictly chemical part of the business can work more quickly than I can; it is impossible for me to get the pharmacology worked out quickly, and I cannot experiment upon human subjects with bodies the dose of which I have to find out. The serum is a very definite thing; you cannot vary it very much; but these organic compounds, so far as my observation goes, we can vary to a very great extent, if not to an unlimited one, and with each variation in the composition of the body used we get a different therapeutic value. And if the cure of cancer is to be with this country as an honour I am sure it will depend upon getting the whole of the series of compounds connected with cinnamic acid thoroughly worked out from a pharmacological point of view. I am sure Dr. Lewis Jones will support and amply justify the truth of what I have said. I have always been firmly convinced from the results I have obtained that the early primary growths are most amenable. A great many growths if not actually removed are very much circumscribed in their activity. The question is, how you gentlemen are going to promote the inquiry. I believe anyone with any spirit of scientific enthusiasm can work at the subject in one way or another. The chemist can examine his compounds and the gentleman who has any cancers to treat can test the substance which the chemists and pharmacologists put into his hands. I am sure that in addressing a multitude of young minds there will be no practical opposition to anything new. One thing I have always felt in referring to this subject is that there is a wall of opposition, based upon a hopeless feeling of tradition, that because a thing is new therefore it cannot be tried until it is certain it will do some good. I can assure you, gentlemen, that even if the treatment of these growths does not add to the cure the relief in the symptoms which you can get for the patients will well repay your attention to its study.

Dr. F. W. ANDREWES (pathologist to St. Bartholomew's Hospital) said: I should like to express my own thanks for the paper which Dr. Johnson has read. I have known him a good many years and I know him too well to doubt his own complete *bona fides* in the matter. He is naturally in a very much better position to judge of the effect of this serum upon the cases which he has seen and followed than we can be. At the same time I think it is only right we should sound a note of caution when we remember how often cancer parasites have been found. When one remembers Koch's tuberculin one cannot help feeling that one should go very cautiously indeed in these matters. There are several points which seem to me to be distinctly in favour of the views which Dr. Johnson has put forward and I would ask one or two questions about points which he passed over too lightly in my judgment. First of all he has not told us enough about this parasite; he has not told us of the class of organism it is; he has not told us how it is cultivated or what it looks like in culture. All these are points I should have been glad to have had information about. Neither has he told us the precise mode of inoculation of the horses or sheep—at least, if he did I did not catch it. Is it intraperitoneal or intravenous? So there are several points I should wish information about. But I agree with what fell from Mr. Willett, that if there is anything in this the most striking proof of it is the apparently specific reaction that arises when the cancerous patient is injected with these particular cultures. I feel that one is not in a position to discuss this paper at all; the thing must stand or fall entirely on the ultimate fate of these cases, and that cannot be known for a long while yet. I feel it is rather early in the day to have said quite so much about it as Dr. Johnson has said.

Dr. JOHNSON, in reply, said: I will begin with Dr. Andrewes. There must be beginners somewhere. I want to begin; Dr. Drage wants to begin. We are trying to arouse a certain amount of enthusiasm. I came to St. Bartholomew's with my paper and not to the Royal Medical and Chirurgical Society because I wished if possible to interest the members of the staff here, to allow me to demonstrate that very reaction in the wards and in suitable cases of which I have sketched the theories here this evening. As Dr. Andrewes very properly says, the reaction of the injection of these minute doses into the subcutaneous tissues of patients far away from the tumour is exceedingly important and it is one of the great proofs, one of the earliest proofs, one of the only proofs that one can bring to bear without the lapse of time. With regard to the inoculation of the animals, I worked amongst Dr. Schmidt's animals, I saw his patients with him, and did everything with him from beginning to end. The inoculation of animals is subcutaneous always and not intraperitoneal or intravenous. Some intravenous inoculations have been made and probably that will be the way in which it will be carried out in future. For the reason I have mentioned before, that

the parasite does not kill, we are able to inject fairly large quantities directly into the veins. It has been complained that I have not said more about the parasite. Well, I am not good at word-pictures and I have no real pictures to show you. I have seen them but I have no drawings. But if you wish to know what they look like you have them set forth in pictures in Schüller's book, and by Russell in his toxin bodies, and they are described beautifully in the *American Journal of the Medical Sciences* which I quoted. Then there is the organism that Plimmer described—that is to say, the cancer parasite in a certain form. The only difference in these cases is the one which I noted previously. Dr. Andrewes said he must sound a note of caution when we remember the number of cancer parasites which have been found. It is perfectly true many have been found and described, but may they not be all one? I do not know that there is anything to answer in what Dr. Lovell Drage said, except that he said he had not that State help which Dr. Schmidt had.

Dr. LOVELL DRAGE: Not State help, but that I had not a clinic and such help as the Germans have.

Dr. JOHNSON (resuming): Dr. Schmidt is in private practice and has to support his investigations out of his own pocket and he has done it. Mr. Willett asked as to injections before operation. Certainly they can be carried out, but the injection would introduce a form of inflammation which would render the operation much more difficult. Where the cancer process has made strides it would be far better that surgical interference should be called in than that nature should be allowed to contract and to leave a scar in surrounding tissues.

Gentlemen, I have to thank you very much for your kind attention and I hope I shall have the chance of showing you practically what I have sketched in theory this evening.

MEDICINE AND THE LAW.

The Diagnosis and Notification of Small-pox.

ON Nov. 3rd Mr. J. M. Wheler, a medical man in practice at Battersea, appeared at the South-Western police court in answer to a summons for failing to notify a case of small-pox. There was no doubt as to the fact that a case of small-pox had been treated by Mr. Wheler as chicken-pox and that in consequence of this mistake other persons had become infected, but considerable question arose as to whether the defendant was aware of the nature of the disease to such an extent as to render him liable to conviction. It was suggested by the Battersea Borough Council, acting as the prosecutors, that as Mr. Wheler apparently felt some doubt in the matter he should have "taken advantage of the expert provided"—namely, the medical officer of health of the district—and that by failing to exercise all reasonable skill he was guilty of negligence. Mr. Garrett, the magistrate who heard the case, differed from this view and refused to accept the contention that Mr. Wheler, because he might have felt a doubt, should have therefore notified the case as one of small-pox, pointing out that if a medical man acting upon suspicion caused the removal of a man suffering from chicken-pox to a small-pox hospital the consequences would be very serious. He held that a medical man could not be expected to do more than to act to the best of his judgment and, acquitting the defendant of all negligence, he dismissed the case. The suggestion that the medical officer of health is provided as an expert whom medical men can consult in cases of doubt where dangerous infectious disease is suspected is clearly wrong. This is not the legal position of the medical officer of health and so long as his duties remain what they now are any assistance that he may afford in this way must be purely voluntary. To compel his attention and to obtain his opinion by notifying a case which may turn out not to be one of the disease suspected is a course which any medical man would properly hesitate to take. The question of how far a medical officer of health should render assistance upon such occasions was gone into at some length in THE LANCET of Oct. 12th, 1901, p. 987, the occasion being the publication of some correspondence which had taken place between a medical man and a medical officer of health upon this very subject. In the course of that correspondence the latter wrote: "I am always pleased to assist my medical *confrères*, but you must understand that the diagnosis of cases is no part of the duty of a medical officer of health. The responsibility of diagnosis rests with the medical attendant entirely." This, we think, is a correct statement of the position. Whether some method should be devised to enable a medical practitioner to obtain the opinion of one more experienced than himself in the case of such a disease as small-pox is another matter. The power to do this would be a source of protection both to him and to the public. At present with regard to his poorer patients who cannot afford to pay for a second opinion the medical man has to bear the responsibility himself, being only able to strengthen his own opinion by invoking the assistance of a friend, should he be able to do so. Mr. Wheler was successfully defended in this case by the London and Counties Medical Protection Society, Limited.

The Evidence of Medical Witnesses: Scene between Judge and Counsel.

A sharp difference of opinion occurred at the Lancaster Assizes at a late hour on Friday evening, Nov. 6th, between Mr. Justice Ridley and Mr. Sharp, counsel for a prisoner named Joseph Fleming, charged with a rape on a married woman at Barrow. Dr. W. A. Holmes of Barrow, who was called for the prosecution, stated in answer to the prisoner's counsel that he examined the prisoner and his clothing some hours after the alleged offence but that he found no marks whatever corroborative of the prosecutrix's story (who had stated that she was menstruating when the assault took place). Dr. Holmes added that he expected that a man in the prisoner's position would have removed any marks and have cleaned himself in the interval. Mr. Sharp made no remark as to this addendum by the witness during his examination, but when he commenced his address to the jury he animadverted upon it in a severe way. "No more scandalous remark was ever made by a doctor," he said. "Instead of answering the question put to him in the affirmative or negative, he made an addition he should not have done." Mr. Justice Ridley (sharply): "I do not agree with you, Mr. Sharp, that it was a scandalous remark on the part of the doctor." Mr. Sharp: "And I respectfully beg to disagree with you, my lord. I have heard the medical profession belauded, and rightly so, in this court, because of the way in which members of the profession give their evidence and I have generally found in my experience that they give their evidence fairly, but in this case I hold to my opinion that it was a scandalous remark for Dr. Holmes to make." Subsequently, when his lordship was summing up the case to the jury, he observed: "Now, I must say a word about the doctor. I disagree with the learned counsel for the defence in the observation he made. I think what the doctor did was not scandalous. He gave his evidence very fairly. Most members of the medical profession do give evidence fairly and properly, and I hope it will be made known that I think so, because if such an attack is made upon a gentleman in Dr. Holmes's position it is well he should be defended from such an uncalled-for attack. I never heard a more uncalled-for attack upon a professional witness. At any rate, if Dr. Holmes is to be attacked by one person in the court he shall be defended by another." The jury found the prisoner guilty of an indecent assault "under extenuating circumstances" and he was sentenced to four months' imprisonment. Counsel for the defence in a criminal trial sometimes resorts to an attack upon a witness for the prosecution in the endeavour to secure the acquittal of his client by diverting the jury's attention from the true issue. In the case above quoted the learned judge took care, as a judge should do, that the issue should not be so obscured.

MEDICAL MAYORS.—The following members of the medical profession have been elected mayors of their respective boroughs: Mr. S. J. Allden, M.D. Durh., L.R.C.P. Lond., M.R.C.S. Eng. (Bridport); Mr. E. C. Andrews, M.D. Cantab., M.R.C.S. Eng. (Hampstead); Mr. W. Banks, M.B. Lond., M.R.C.S. Eng. (Falmouth); Mr. J. Campbell-Macaulay, M.R.C.S. Eng., L.S.A. (Honiton); Mr. J. H. C. Dalton, M.D., D.P.H. Cantab. (Cambridge); Mr. E. W. Kerr, M.D., M.Ch. Dubl. (Dorchester); Mr. David Lloyd, M.B., M.S. Glasg. (Denbigh); Mr. R. B. Searle, L.R.C.P. Lond., M.R.C.S. Eng. (Dartmouth); Mr. J. Soutter, L.R.C.P. Lond., M.R.C.S. Eng. (Hedon); Mr. H. Stear, M.R.C.S. Eng., L.S.A. (Saffron Walden).

THE LANCET.

LONDON: SATURDAY, NOVEMBER 14, 1903.

A New Serum for the Treatment of Cancer.

BECAUSE of the importance of carefully considering every method which may appear to afford the least possibility of success in the treatment of malignant disease and because of the somewhat loud advertisement which has been given by the daily press to the latest "cancer cure," we have thought well to publish in THE LANCET a full report of the Address on Dr. OTTO SCHMIDT'S Specific Treatment of Cancer which was delivered by Dr. H. JOSSÉ JOHNSON before the Abernethian Society of St. Bartholomew's Hospital, together with an abstract of the discussion which followed thereon. In his address Dr. JOHNSON deals with two aspects of the matter under consideration; first he refers to Dr. SCHMIDT'S view as to the causation of carcinoma and sarcoma, and next he describes a method of treatment which was suggested to Dr. SCHMIDT by the alleged discovery of a parasite which, it is claimed, can be found in every case of carcinoma and sarcoma and which has been isolated in pure culture from cases of both forms of malignant disease. And we may say at once that before Dr. SCHMIDT'S theory as to the exact causation of malignant disease can be accepted by the medical profession it will be necessary for very much more evidence to be produced. It is stated that Dr. SCHMIDT has isolated the parasite in pure culture and that he has produced tumours in two white mice by the injection of such cultures. But as to the exact nature of the parasite, or as to the kind of tumour which was produced by the injection, nothing which is in any way relevant is said. It is stated that Dr. SCHMIDT has isolated a parasite which, in one or other phase of its existence, corresponds with the various "cancer parasites" which have been described by writers on the subject from the date of RUSSELL'S "Address on a Characteristic Organism of Cancer" in 1890 down to the publication of SCHÜLLER'S Monograph in 1901. Dr. SCHMIDT'S description of a parasite may be, in a sense, comprehensive, but it is wanting in many details of proof which will be required by the pathologist before the validity of any claim to be the discoverer of the cause of cancer can be seriously considered. On one important point in connexion with this aspect of the matter Dr. JOHNSON is, we think, under a misapprehension; he stated in his reply to the discussion which followed on his address: "Dr. ANDREWES said he must sound a note of caution when we remember the number of cancer parasites which have been found. It is perfectly true that they have been found, but they are all one. No one has ever cultivated them before; that is the point. This man has cultivated them for the first time." The actual fact of the matter, of course, is that a considerable number of writers claim to have isolated and cultivated the *several* "cancer parasites" which they have described, and as examples we might mention SANFELICE, RONCALI, MONSERRAT, PLIMMER, LEOPOLD, AIEVOLI, KAHANE, WLAEFF, GAYLORD, SCHÜLLER, and VON LEYDEN.

However, it may be conceded that exact proof as to causation is immaterial if only Dr. SCHMIDT can show that he has in truth discovered the long-sought-for cure for one of the most distressing of all diseases. His treatment must at the present moment be judged by its empirical results irrespectively of any scientific foundation which it may have in the alleged discovery of the specific parasite. Dr. JOHNSON gives us to understand that the new treatment for cancer comprises two methods, first, the production of an active immunity against the disease by the inoculation of the patient with a "vaccine" which is obtained by sterilising a culture of the parasite; and, second, the production of a passive immunity by inoculating the patient with the serum of a horse or a sheep which has been rendered actively immune by the first method. The injection of the "vaccine" into a patient with cancer is stated to be followed by a specific reaction which includes a rise of the body temperature and a local reaction in the primary new growth and in any metastatic formations in the glands or elsewhere; and in addition there are curative effects described. The treatment by serum injection is spoken of in perhaps rather less favourable terms. It will be seen that, quite apart from any curative use, a most important value in diagnosis is claimed for the "vaccine," for we are told that although patients with the "cancerous cachexia" very often will not react to the "vaccine" we have now a method by means of which innocent growths can be with certainty diagnosed from malignant ones and by means of which the existence of metastatic deposits can be detected. In hesitating to accept without more definite evidence the claims which are put forward on behalf of this new treatment of cancer one thing justifies all precaution apart from other and grave sources of uncertainty. It is impossible to forget that quite similar claims have been urged on behalf of other "cancer cures" and have, on being tested, proved fallacious. Thus, WLAEFF obtained a "cancer serum" by inoculating asses with yeast parasites which had been obtained from cases of carcinoma and which were stated to produce malignant growth when inoculated into experimental animals. WLAEFF'S serum, it was stated, was used for the treatment of 40 patients with malignant disease, and in nearly every case a local reaction both at the site of injection and in the tumour itself was observed. But, in spite of this, WLAEFF has not been able to convince other pathologists of the value of his discovery. Dr. LOVELL DRAGE, who took part in the discussion at the Abernethian Society, was also struck by the similarity of the reactions which follow the injection of the cinnamic acid compounds, which he has been using for the treatment of cancer, with the reactions which Dr. SCHMIDT has obtained. Dr. DRAGE'S observations have appeared in our columns.

At the conclusion of his Address Dr. JOHNSON very properly indicated that he had been speaking of a "method of treatment" and not of a "cure." Before the word "cure" can be used much that is at present uncertain will have to be established clearly, and we understand that

DR. SCHMIDT is pledged to give full details of the discovery which he claims to have made at a meeting of the Comitié für Krebsforschung before the end of the year. It is also understood that at the present time there is no supply of either "vaccine" or serum available for use in this country, and that consequently patients who may wish to undergo the treatment must proceed to Cologne and place themselves under DR. SCHMIDT'S care. This course under present conditions, and until considerably more detailed information has been given, is not one which we feel justified in advising our readers to recommend. Further, we cannot but regret the premature publicity which has been given to the treatment as a "cure" in the pages of the daily press. Almost monthly the discovery of new "cancer cures" is made known to the public when the announcement has too frequently no better foundation than the elaborate ingenuity of a newspaper man in search of a sensational heading for the next day's issue. The inevitable result of these announcements is that patients with inoperable cancer turn with eager hope to that which they are assured will relieve their pain and suffering, only to meet with disappointment and to suffer, if possible, a deepening of their despair. Surely the most elementary ideas of humanity would suggest that the sale of a few extra copies of a journal is but a poor set-off to the aggregate of sorrow and disappointment caused to those who have already sufficient evil to endure. Every observation bearing on the cause or on the treatment of malignant disease is keenly watched for by the medical profession, not only in this country but throughout the civilised world, and every rational theory propounded on the subject is carefully weighed and examined; no good service therefore can possibly be rendered by the sensational publication in popular journals of the details of "cures" which have, so far as can be judged, no claim whatever to be regarded as such. That DR. SCHMIDT'S treatment may prove to be the long expected cure for cancer is hoped for by none more sincerely than by ourselves. But until fuller information is afforded we are not able to express any favourable opinion on the subject.

Private Nursing Homes.

IN a recent issue[1] a correspondent urged the need of organisation of the medical and surgical nursing homes in this country and to point the moral he drew an unfavourable picture of the difference between the arrangements in English health resorts and in those of a small Swiss bathing town. One of the chief sources of complaint lay in the preposterous charges of English nursing homes which would seem to show that in England only the wealthy must be sick. That there is a large degree of truth in this complaint is evident to all practitioners who have endeavoured to arrange for the needs of middle-class or comparatively poor patients who are scarcely fit subjects for treatment in general hospitals and yet cannot cope with the expense of a nursing home without unduly crippling their resources. The fees in nursing homes are necessarily a matter of private arrangement. Those who cannot pay them need not enter, since broadly the cost is fairly set forth when the preliminary inquiries are made. There may be extras for operation fee, for medicines, for dressings, for washing, and for stimulants if required and these may amount to more than was anticipated, but the terms generally are dependent upon the nature of the nursing required and upon the room occupied. These in turn vary to some extent with the locality of the nursing home and in one sense it is to be deplored that nursing homes must almost inevitably be in the immediate neighbourhood of the medical quarter, where rents and rates are extremely high and where it is not always possible to insure quiet.

With few exceptions the nursing homes in London are commercial undertakings which must pay their way, and owing to the uncertainty of work the fees charged must be calculated so as to give a fair return for the original outlay, for the current expenses, and for the risk of many of the rooms remaining unoccupied during a large part of the year. It is often assumed that a large staff of trained nurses must continually be kept upon the premises, either actively engaged or ready for any sudden rush of work, and this furnishes further excuse for keeping up the high cost to the patients. To those with intimate knowledge of the working of nursing homes this plea scarcely seems justifiable. In most homes the matron is herself a trained nurse who is able to undertake a certain share of nursing duties, and whether she assists at an operation or not she is generally present, directing, supervising, and receiving instructions, complaints, or other remarks with the urbanity acquired by long habit and holding herself responsible for any shortcomings. The number of nurses attached to the home varies with the number of patients and with the size of the home. Some are permanently engaged, others come and go as the rooms fill and empty, and this fluctuation, of which the medical men visiting the house may scarcely be conscious since they always see the familiar faces, is often necessitated by the value of space being so great that many of the nurses must sleep out and may therefore come from one of the neighbouring institutions for nurses. In this way the expenses of the nursing home are legitimately decreased, since there is no advantage in attempting to keep on the permanent staff greater numbers than are actually required for the average service of the home and there is a distinct objection to a large unemployed staff, since it must sometimes be difficult to maintain the discipline and quiet required equally whether patients are many or few.

Apart from these expenses it is often urged that the dietary ordered involves a large outlay, but expensive delicacies are surely very rarely demanded and, as our correspondent points out, the directions are not always implicitly followed. *Freshly* minced meat may not make its appearance with sufficient frequency and recooked mutton may sometimes be served instead of fresh mutton. Although these difficulties are obviously of frequent occurrence in every household, in a nursing home where urgent cases demand excessive care some means should surely be found to overcome them. The question is whether greater organisation would produce more satisfactory results.

[1] THE LANCET, Oct. 31st, p. 1258.

At present we believe that in spite of what our correspondent terms the "preposterous prices charged" there are comparatively few nursing homes which yield preposterous profits; in many there is a constant struggle to meet expenses owing to the serious fluctuations of work, and in this struggle many well-trained ladies have lost their capital and have become hopelessly burdened with debt. Greater organisation might provide a few larger institutions in place of many small private nursing homes, but unless these could be established in the immediate vicinity of the medical quarter resident medical officers would be required in addition to the large staff of nurses and the cost of maintenance would be proportionately increased. Admirable equipment will not fill the wards or private rooms and it is possible that long periods of comparative inactivity would have to be faced, as in the fever hospitals where so often there seems to be no middle course between the strain of an epidemic and the intervening torpor. This uncertainty of work is felt greatly by all nursing homes, but the dependence upon the goodwill or caprice of a few supporters probably tends towards efficiency, though it cannot safely reduce the charges which must be based upon broad calculations of the average expenses.

There are already many semi-charitable institutions where patients are received upon what may be regarded as nominal payments, but in most of these there are regulations which, though well intentioned, serve to hinder many from claiming the benefits they offer. A comparatively poor patient may prefer to pay a comparatively small fee to his medical attendant and to retain his services rather than to be forced to employ a stranger attached to the institution who is, under the regulations, ready to offer gratuitous assistance; and it scarcely seems reasonable that there should be close scrutiny of the extent of the charitable reduction made by any member of the profession in any particular case, still less that it should be assumed that if there is any payment to the medical attendant the scale of charges in the home must be increased. Patients often shrink from the full disclosure of their means involved in the application form of some semi-charitable nursing homes, and the sad fact remains that for a very large number of patients there is in this great city no adequate provision in time of sickness. Admission to a general hospital proves unsatisfactory on many grounds; there is the question of hospital abuse, while, even if it were desirable to organise any regular systems of payment, there would still remain the difficulty of deciding what sum would be an adequate payment. Services which the majority receive gratuitously and for which the charge in most nursing homes is so costly as to be prohibitive would have to receive a price.

The foregoing remarks apply purely to medical and surgical homes and do not touch those receiving maternity and chronic cases, in which the conditions are so widely different that they merit separate consideration. We are not suggesting that the arrangements in vogue for establishments of either of these classes should be altered; they exist to meet well-defined wants and, in our opinion, justify their existence. This, we believe, is the opinion also of the whole medical profession.

The Operation upon the German Emperor.

THE following authorised announcement has appeared in the English and continental press:—

His Majesty the EMPEROR to-day underwent an operation for a polypus on the vocal cord (*Stimmlippe*). The operation was performed by Geheimrath Professor Dr. MORITZ SCHMIDT, and passed off quite smoothly. His Majesty has to refrain from using his voice until the wound resulting from the operation is healed.

VON LEUTHOLD.
MORITZ SCHMIDT.
Potsdam, Nov. 7th, 1903. ILBERG.

The result of a microscopic examination carried out by Professor J. ORTH is officially given in the following terms:—

The polypus consists of a very soft connective tissue containing only a few cells. This tissue is covered by an epithelium of the pavement variety (*Plattenepithelium*), which is in regular layers and is everywhere sharply distinct from the connective tissue. Some of the cells in the connective tissue contain fine brown minute grains of pigment, which are evidently the result of previous small hæmorrhages. The polypus contains a considerable number of thin-walled blood vessels. It is therefore a case of an entirely benign polypus consisting of connective tissue.

Berlin, Nov. 7th, 1903. Professor J. ORTH.

The feeling of every medical man on reading that in a man 45 years of age, whose father died from cancer of the larynx and whose mother succumbed to cancer of the breast, a laryngeal polypus had been discovered and removed was naturally one of uneasiness. We are certain that all our readers shared the public apprehension when first the news of the operation upon the German EMPEROR reached them. The report of the EMPEROR'S advisers, however, so far as it goes, is so very plainly expressed as to leave no doubt that in the piece removed, at any rate, there was nothing that justified a suspicion of malignancy. In that connexion the statement made by Professor ORTH—viz., that the epithelium everywhere was quite distinct from the connective tissue—is, of course, of the highest importance. Both Professor MORITZ SCHMIDT and Professor ORTH are authorities in their respective fields. The former is the learned surgeon who did not hesitate to pronounce the dreaded word cancer when he examined the then Crown Prince at San Remo exactly 16 years ago, and he would certainly not have undertaken an intra-laryngeal operation upon the EMPEROR, save merely for exploratory purposes, without previous consultation with other authorities if he had the least doubt in his mind as to the nature of the growth. Professor ORTH, moreover, would certainly have expressed himself much more guardedly and would not have spoken of the growth removed as "entirely benign" had the microscopic examination of the latter left any uncertainty as to its true nature. All these circumstances, as well as further reassuring statements as to the illustrious patient's condition, make it right for us to insist upon anticipation of a speedy recovery. The condition of the EMPEROR'S larynx will be carefully watched by his medical advisers and fuller clinical details will probably be given if it appears that any useful purpose would be served by so doing. The courage and good sense of the EMPEROR in taking the world into his confidence are

to be commended. He has doubtless by so doing prevented the dissemination of much sinister rumour and much idle gossip.

Annotations.

"Ne quid nimis."

THE LATE LORD ROWTON.

THE rich and the poor, the masses and the ruling classes, will alike feel heartfelt regret at hearing of the death of Lord Rowton, which took place at his residence in London on Monday last, Nov. 9th. Lord Rowton was born in 1838, a grandson of the Earl of Belmore and nephew of the great Lord Shaftesbury. He received his education at Harrow and Cambridge, and after taking his degree was called to the Bar. It is said, and we believe with truth, that Lord Rowton, then Mr. Lowry Corry, first attracted Lord Beaconsfield's attention at a country house party by his cleverness in saving the situation from becoming dull. The story is told of different houses and with different details, but after some such introduction he became private secretary to the great statesman in 1866, a post which he continued to hold until in 1881 the association was dissolved by the death of his great friend. From that time the Lord Rowton of high social and diplomatic circles disappeared, to reappear as the founder of a remarkable and practical philanthropic movement. While engaged in the work of the Guinness Trust Lord Rowton conceived the idea of what he loved to call "poor men's hotels"—buildings which he intended to take the place of the wretched habitations known as common lodging-houses and to accommodate the deserving poor in a respectable manner at a reasonable expense. By many his plan at first was opposed as being almost impracticable, but he succeeded in getting Sir Richard Farrant, the then deputy chairman and managing director of the Artisans, Labourers, and General Dwellings Company, to build for him the first Rowton House. A site was secured in Vauxhall and the building was erected by Sir Richard Farrant at the net cost of the work, 5 per cent. only being added for the directors of the Artisans, Labourers, and General Dwellings Company. So important did we consider Lord Rowton's movement at the time as a practical contribution to the question of the housing of the poor that we made the first Rowton House the subject of a Special Commission, as we did also the second Rowton House which was built at King's Cross.[1] Since that time three other houses have been erected and a sixth is now in contemplation. Both in the provinces and abroad other companies have imitated the Rowton houses and the movement initiated by Lord Rowton is likely to spread widely inasmuch as he has shown the way to make philanthropy pay. The Rowton houses yield a 5 per cent. dividend, while catering in the kindest spirit for the poor. The great success of these institutions was due from the beginning to the personal interest taken in them by their originator. No detail was too insignificant for Lord Rowton to consider. He himself slept in the lodging-house beds to test their comfort and experimented with the angle which the backs of the seats should take in order that his lodgers might sit with ease. Nor did he omit to minister to the mental wants of his lodgers, as the pictures and panels on the walls of the houses and the books there provided amply testify. He knew the wants of his fellows; he had the sound sense to see that the rich and the poor, the well-born and the proletariat alike, need certain things to make their domestic environment a cheerful one as well as a sanitary one and he acted upon his views with the broadest sympathy. To the medical man it is a truism that "the colonel's lady and Mrs. O'Grady are just alike under their skin," but this knowledge is apt to be hidden from gentlemen born in the peerage and spending half a lifetime in exclusive political circles. Lord Rowton's intuition served him instead of education; he grasped the wants of the poor and setting out to relieve certain of them with courage and shrewdness he had the good fortune to see his efforts crowned with acknowledged success during his lifetime.

[1] Report of THE LANCET Special Sanitary Commission on Private Action in Respect of Common Lodging-houses, THE LANCET, April 29th, 1893, p. 1017, and March 23th, 1895, p. 867.

MALARIA IN INDIA AND THE COLONIES.

THE opening meeting of the session of the Royal Colonial Institute was held at the Whitehall Rooms, Hôtel Métropole, on Nov. 10th, the Right Hon. Sir George T. Goldie, K.C.M.G., being in the chair. After a brief address by the chairman on the necessity of the mother country waking up to the value of her Imperial possessions, Major Ronald Ross, professor of tropical medicine in the University of Liverpool, read a paper on Malaria in India and the Colonies. After showing the extent to which malaria prevails in the tropics to the detriment of the pioneer, the traveller, the planter, the engineer, and the soldier, the lecturer urged that the question how best to contend against the scourge is one of the greatest economical importance for an empire like the British. He claimed that science had fully established three great laws concerning malaria: first, that it is caused by numbers of microscopical parasites which live and propagate themselves in the blood; secondly, that these parasites are carried from sick persons to healthy ones by the agency of a genus of mosquitoes called anopheles; and thirdly, that these kinds of mosquitoes breed principally in shallow and stagnant terrestrial waters. These laws, he pointed out, were now held by experts to satisfy nearly all the known facts about the disease. Passing to the question of prophylaxis, the value of mosquito nets, punkahs, and wire screens was dwelt upon, while quinine was stigmatised as no preventive, inasmuch as it does not exclude the parasite. But Major Ross pointed out that it was a great mistake to suppose that the whole subject of the prevention of malaria is contained within the formulæ of personal prophylaxis. "These will," he said, "enable individuals to protect themselves to a large extent, and if strenuous efforts are made to instil them into the general population it is to be supposed that a certain percentage of the public will take the trouble to adopt them. But every practical sanitarian knows by this time that if we depend solely upon personal prophylaxis for prevention of any disease we rely upon a broken reed. The fact is that the vast mass of the people will never believe in, or even seek to know, the principles of personal hygiene and will certainly not adopt them in spite of all our efforts. ..... For immediate results, at least in tropical and barbarous countries, we must look chiefly to State action." He then detailed the State measures for the repression of malaria which have already been tried in Sierra Leone, Havana, Lagos, Ismailia, the German colonies, Hong-Kong, and many other places, and with which our readers are familiar, and concluded by quoting and advocating a series of resolutions recently passed by the Chamber of Commerce in Liverpool, associated with members of the chambers of Manchester and London and of the Congress of the Royal Institute of Public Health. This joint meeting recommended, with special reference to West Africa, (1) that a fully qualified medical officer of health should be appointed to each of the principal West African towns; (2) that this officer should be supervised by a sanitary commissioner working on the Indian model of organisation; and (3) that an annual sanitary report regarding the West African

colonies should be regularly published. Major Ross admitted that there were difficulties in the way of organising the definite and centralised sanitary scheme thus indicated. Of course, it might be found advisable after discussion to modify the details while retaining the principles. But he maintained that, if we wish for a continuous policy against malaria and the other grave diseases in the tropical colonies we must reorganise our sanitary system. A short discussion and a vote of thanks to Major Ross for his lecture brought the proceedings to a close.

A REMARKABLE CASE OF MULTIPLE PERSONALITY.

RECENT clinical investigations by physicians, especially of the school of Charcot, in regard to the subject of "double consciousness" have brought to light many facts of professional and medico-legal interest. In the *Journal of Mental Science* for October Dr. Albert Wilson reports a remarkable case of multiple consciousness in the person of a young girl who at different times of her life exhibited the varying and different characters of one or other of a dozen "personalities." At the age of 12½ years the girl was attacked with influenza and cerebral meningitis lasting about six weeks. The multiplicity of personalities which she exhibited during her life began during this illness and in the following circumstances. In the third week of the illness she was delirious and maniacal and showed intense fear of imaginary snakes (visual hallucinations). She was mentally blind in that she could not recognise people, "yet a hand or any crease in the counterpane became to her a snake." Choreiform fits and opisthotonos occurred in the fourth week, the attacks being terminated by temporary coma. In the fifth week recovery set in and intelligence returned. In the sixth week there developed catalepsy and paraplegia and quite suddenly one day she developed into a different personality. Whilst in bed reading and playing with her dolls she "commenced to shake and clear a space around. Then she said, 'It is coming,' turned a somersault, and sat up in bed in this new personality." Her manner was now childish and her words were clipped as in baby talk, she also used words wrongly, calling white, black; black, white; and red, green. In this state she had some conception of her normal self whom she called "that person." She always says she is "very cross with that person for going and leaving her." She has frequent cataleptic attacks while in this state and is noisy and forward in manners, whereas in her normal state she is a modest and well-behaved child. Other personalities succeeded from time to time in the patient and as a rule she gave herself a different name in each case. Thus her next personality (No. 3) was called by her "Old Nick." This new personality made its appearance on July 24th, 1895, stayed till August 8th, and then disappeared for a year, returning on July 12th, 1896, when it continued for ten weeks. When in this personality the patient was able to read and to write and enjoyed good health but displayed a very bad temper. When she returned to a normal state she had no memory of events which had occurred to her in the "Old Nick" stage. In the character of a fourth personality she was both deaf and dumb. The deaf-mute condition recurred five times, its last appearance being in August, 1895. It lasted a few days only. Other personalities were of varying character and duration; one of these was named by her "good thing" or "good creature" or "pretty dear." This was the most intelligent of the numerous personalities and while in this stage she learnt French. Another personality was characterised by imbecility, blindness, and paraplegia. "The striking feature in this case was that when blind she could draw, while at no other period of her life, either normal or abnormal, had she any ability in drawing." Moral delinquency was exhibited in another of her personalities. She was then violent and cruel, bullied her little sister, and on one occasion she would have pushed the latter into the fire if help had not arrived. When she grew up to be about 16 years of age her normal personality had practically entirely vanished. She was sometimes the individual which she called a "thing" but more usually she was another—viz., "good creature." In some of her personalities, adds Dr. Wilson, habits of baby-talk and a forward unmaidenly manner existed and when menstruation was established no difference was produced in her mental condition. When 17 years of age she developed another personality in which she was self-willed, disobedient to her parents, subject to strong erotic impulses, and inclined to wantonness. In all, says Dr. Wilson, about a dozen different personalities, alternating or occurring at irregular intervals, constituted the total of her psychical life. "This opens the very serious question which constantly confronts us, that of responsibility" for acts done in such states of abnormal consciousness.

THE DANGERS OF SCHOOL ATTENDANCE.

MR. C. O. TREW, writing in the *Times* of Nov. 9th, points out that the great and proper desire of educational authorities to stimulate a high average attendance may lead to danger to the community. Where a cent. per cent. attendance is aimed at children are sure to be sent to school when they are physically unfit. To use Mr. Trew's words, though "absolutely incapable of receiving instruction through temporary or incipient malaise they are sent that they may not miss. Thus attendance is too often the seed of an epidemic." We feel that there is great force in this remark. The connexion of school attendance with epidemics of measles and diphtheria, for example, is so close that no efforts should be spared on the part of school authorities to weed out from among their flock children coming back to school before they have properly recovered, or attending school while in the early stages of disease or from an infected house. It is hard on the children and hard on the teachers that the prestige and the salary dependent on high average attendance should suffer because of the incidence of sickness, but all the world over illness is attended with inconvenience to others than the sick and so far as possible risks of infection through school attendance must be removed. The parents who despatch a sick child to school do not act in the interests of the child, or of his teacher, or of his fellow pupils and this fact requires recognition.

PRIMARY DIPHTHERITIC BRONCHITIS.

AT the meeting of the Société Médicale des Hôpitaux of Paris on Oct. 16th M. Emile Sergent and M Henri Lemaire described a case of the rare condition of primary diphtheritic bronchitis. A woman, aged 21 years, was admitted to hospital on Sept. 23rd suffering from intense dyspnœa. The history was that she had had bronchitis for eight days and that on the last two days the dyspnœa had been severe. The respirations were 40. Inspiration was stridulous and was accompanied by supra- and infra-sternal retraction. The voice was hoarse and almost inaudible. The face was slightly cyanosed. The throat was normal and the cervical glands were not affected. The pulse was 110 and the temperature was 101·5° F. On auscultating the chest the only abnormal sound heard was slight stridor; the vesicular murmur was almost absent. Dyspnœa of laryngeal or tracheal origin was suspected. As the thyroid was enlarged, the pupils were slightly unequal, and there was a well-marked collateral venous circulation in the sterno-clavicular region, this view was thought to be confirmed

and dyspnœa from compression was suggested. Laryngoscopic examination revealed no lesion of the mucous membrane of the larynx but the vocal cords were in the paralytic position. Tracheotomy was performed and a mass of membrane escaped. The dyspnœa almost completely disappeared. The membrane yielded the diphtheria bacillus on culture. Antitoxin was given. On the following day membrane and bloody discharge issued from the tracheotomy tube and bronchitic râles were heard in the chest. Signs of broncho-pneumonia developed at the left base. On Sept. 26th a cast of the trachea and bronchi six inches long was discharged through the tube. The dyspnœa increased and death occurred on Sept. 29th. The necropsy explained the symptoms of compression. Below the right lobe of the enlarged thyroid was a large lymphatic gland four centimetres in diameter which covered the innominate veins. The mucous membrane of the trachea and main bronchi was red and covered with a greyish granular coating. The smaller bronchi were filled with a purulent fluid. At the bases of the lungs were patches of broncho-pneumonia. The bronchial and pulmonary lesions contained the diphtheria bacillus. Before tracheotomy the diagnosis of diphtheria was impossible.

PROFESSIONAL MEN AND MILITARY SERVICE.

MR. W. M. ANDERSON, house physician at Charing Cross Hospital, had recently to appear at Bow-street police-court charged with being an absentee from the training of the County of London Imperial Yeomanry (King's Colonials). For this offence he was fined £5 but as mention was made of a "case" to be stated there may remain a question of law to be argued with regard to his guilt. This cannot affect the facts given in evidence at the police-court as to the steps which led up to the charge against Mr. Anderson. The story told is hardly one likely to increase the popularity of the corps in question among would-be recruits of the class to which Mr. Anderson belongs, a class which may be competent and willing to perform its duty towards its country when able but which must at times be obliged to claim release from its obligations as a matter of necessity. Mr. Anderson had been for some time in the London Scottish, had served in the late war, and had joined the King's Colonials on his return from South Africa, being then a medical student, and not house physician at a general hospital. Finding after his appointment that his duties were incompatible with his attendance at the requisite number of drills and at the annual training in camp he applied five or six weeks before the last training took place for his discharge. In order to obtain this certain requirements had to be fulfilled with regard to the return of clothing and equipment and the settlement of a small sum of money due to the regiment, the precise amount of which in Mr. Anderson's case appears to have been, and still to be, in dispute. The mere civilian would think that a reply stating these conditions would have been promptly sent and that on their being complied with the discharge would have been granted. This, however, was not done, as Mr. Anderson was apparently deemed to be informed of the terms upon which discharge could be obtained owing to these being displayed at the orderly room. Mr. Anderson further wrote on the subject to his commanding officer, but a trooper may not write to a colonel, not even if he is a busy professional man, ignorant or oblivious of the disciplinary regulations of the army, so the next occasion on which Mr. Anderson heard of the matter was when a police constable took him into custody at the hospital and escorted him through the streets to answer for his delinquencies. He mentioned also in his evidence an occasion previously to his arrest when a visit to the orderly room did not produce the information and facilities which he required. This, however, and other matters will no doubt be considered by those responsible for the regiment to which he belonged, or belongs, and it is to be hoped that they will realise that while the citizen soldier is willing to put himself to considerable inconvenience and to some expense in order to make himself as efficient a fighting man as he reasonably can, he must be allowed a certain amount of latitude and consideration when not actually standing in the ranks. The employment of a little tact and the relaxation of red tape whenever possible are alike essential so long as the present system of voluntary service in the auxiliary forces is retained. If this were not generally recognised cases like that of Mr. Anderson would frequently arise in other corps than that from which he sought to be discharged.

THE STATUS THYMICUS AND SUDDEN DEATH.

THERE is probably no form of sudden death which has received so much attention from the medical profession in recent years as that form associated with hyperplasia of the thymus gland and of the lymphatic apparatus in general known as the status thymicus. An account of this abnormal constitutional condition was given in an annotation in THE LANCET some time ago.[1] In the *Johns Hopkins Hospital Bulletin* for October Dr. G. Blumer, professor of pathology at Albany Medical College, gives a detailed account of his studies of this interesting affection. Attention is called to the fact that a similarity between the lesions observed post mortem in cases of status thymicus and many cases of death under anæsthetics has been traced by several observers. These facts are important from a professional and a medico-legal point of view, for it is necessary that we should recognise "the existence of a class of individuals, the subjects of a peculiar constitution which renders them extremely susceptible to shocks of various kinds, physical, psychical, and toxic, and which may lead to sudden death from accidents which to the ordinary individual would be trivial." Instances are on record, adds Dr. Blumer, where individuals of thymic constitution have died from the shock of a plunge into cold water and the case of the child mentioned by Professor Langerhans, who died a few minutes after the administration of diphtheria antitoxin, is familiar to medical men. A number of cases are also on record where nursemaids and women in charge of infants have been accused of suffocating them when the true cause of death has been shown by post-mortem examination to be asphyxia or syncope occurring in the status thymicus. This morbid condition frequently co-exists with other constitutional affections or diatheses, such as rickets, epilepsy, and ophthalmic goitre, but these are to be regarded as coincidences or accidental associations. Dr. Blumer's own investigations included nine cases of status thymicus with sudden death occurring in infants and children and a study of all the cases recorded in medical literature. The reported pathological anatomy and histology are essentially the same, adds Dr. Blumer, in all the cases recorded but the bacteriology of the affection is unknown. The recognition that the enlarged thymus gland is essentially part of a general hyperplasia of the lymphatic system is due especially to Paltauf of Vienna. In some cases, and particularly in adults, the lymphatic hyperplasia is associated with a hypoplasia of the heart and aorta similar to that described by Virchow in chlorotic subjects. Escherich, who has specially studied the features of the thymic constitution, refers to the following valuable diagnostic features of the affection, with which Dr. Blumer concurs. The patients have a pale thin skin, a pasty complexion, and a good pad of subcutaneous fat. Frequently signs of rickets or of scrofula are present and the

[1] THE LANCET, March 24th, 1900, p. 869.

superficial lymphatic glands of the neck and the axilla are enlarged. There is hypertrophy of the tonsils and circumvallate papillæ, and naso-pharyngeal adenoids are often present. The spleen is frequently palpable. "Many of these patients seem to enjoy perfect health up to the time of their unsuspected death." Referring to the large number of cases personally observed or recorded in literature of infants suspected of being the victims of "overlying" Dr. Blumer states his belief that some of these must be regarded as the victims of the status thymicus. "In one case the child had no appetite on the evening of its death, in another slight convulsions ('moving and struggling' of the child) were noticed by the mother who was looking through a window a few yards off. On her coming to the child a few minutes later it was found to be dead." A second class of cases is mentioned by Dr. Blumer and Dr. Nordmann where a child has died almost instantly from collapse when immersed in cold water. A third class of cases includes deaths from so-called thymic asthma, an attack of asphyxia of obscure nature not to be confounded with laryngismus stridulus. Lange states that in thymic asthma there is throughout the attack a regular "sighing" respiration which does not occur in laryngismus stridulus. Some cases of death in the status thymicus show accelerated respiration, cyanosis, dilatation of the pupils, and swelling of the veins in the neck, and death follows in a few minutes (Gerhardt, Somma, and Blumer). Laub has described a cerebral form of death from the status thymicus occurring in young adults. The onset is marked by epileptiform convulsions and coma. Albuminuria is present and vomiting occurs. Post-mortem examination shows the presence of the status thymicus and cerebral œdema. Subjects of the status thymicus have been noted to be specially prone to death under surgical anæsthesia (Bayer, von Kundrat, Hinkel, and Blake). Blake, who has specially studied cases in the United States of America, has found that ether is as dangerous as chloroform in such cases. "It would seem," adds Dr. Blumer, "as though two classes of patients were especially liable to this [fatal] accident, patients with simple or exophthalmic goitre and patients with adenoid vegetations." The gross lesions found post mortem in cases of the status thymicus include hyperplasia of the thymus, the spleen, and the lymphatic glands generally, a hypoplasia of the heart and the great vessels, especially marked in pubescent and adolescent subjects, and focal lesions in the spleen and the tonsils (hypertrophy of lymph nodules and foci of degeneration in the same). Cultures from the lymphatic glands and the fluids of the body in several cases (Lartigan and Blumer) gave negative bacteriological results. As to the cause of death Dr. Blumer agrees with Escherich that a toxæmia due to the abnormal disorder of the lymphatic system occurs intermittently in the subjects of the status thymicus. "We would suggest," concludes Dr. Blumer, "that individuals born with the thymic constitution have an instability of the lymphatic mechanism, so that intermittent lympho-toxæmia is produced. During such attacks the patients are especially susceptible to the action of bacteria and chemical poisons and to all physical and psychical shocks which at these times may cause death under circumstances which would be trivial to the normal individual."

THE NATIONAL ANTI-VACCINATION LEAGUE.

THE annual conference of the National Anti-Vaccination League was held at Glasgow on Nov. 7th. Lieutenant-General Phelps was in the chair and the meeting proceeded to consider the eminently sensible recommendations of the Imperial Vaccination League. The letter by Mrs. E. Garrett Anderson, M.D., entitled "Vaccination and the Rates," which appeared in the *Times* of Sept. 15th, 1903, and in which that lady suggested that all employers should insist upon their employés being able to prove that they had recently been efficiently revaccinated, seems to have greatly exercised the anti-vaccination mind. Dr. W. R. Hadwen of Gloucester stigmatised Mrs. Garrett Anderson's methods as "subtle, disgusting, and contemptible." The President read a paper in which he contended that vaccination, especially that performed with calf lymph, was capable of producing cancer. We should much like to see Dr. Hadwen, Lieutenant-General Phelps, and other prominent anti-vaccinationists offer themselves as nurses or attendants in a small-pox hospital. Unfortunately, however, the brutal and overbearing authorities have so little regard for the liberty of the subject that they will not allow anyone to serve in a small-pox hospital until he or she has been vaccinated, so that this test is impossible of attainment. The conference passed various motions, one of which stigmatised pressure used by employers on the advice of Mrs. Garrett Anderson and the Imperial Vaccination League to force employés to submit to revaccination as a condition of employment as unwarranted, tyrannous, and calculated to undermine the independence of the working classes. We can only hope that the Imperial Vaccination League will continue its good work and will be amply provided with funds for the purpose. Subscriptions (10*s.* 6*d.* for members and not less than 2*s.* 6*d.* for associates annually) may be sent to the secretary, Imperial Vaccination League, 53, Berners-street, London, W.

TUBERCULIN IN THE TREATMENT OF LUPUS.

THE employment of Koch's tuberculin in the treatment of lupus is at the present time somewhat rare and therefore a paper published in the present issue of THE LANCET is of great interest. In that article Mr. C. Stanser Bowker of Newport describes seven cases of lupus which he treated by excision and the subcutaneous injection of Koch's lymph. Fowler's solution of arsenic was also injected. In some of the cases the injections were continued for several months, until, in fact, no reaction followed. The results show the success which can be obtained by this method. It will be seen that the chief point in the treatment adopted is the combination of the tuberculin injection with the excision. The cosmetic results appear to have been very good and altogether the treatment seems to have been satisfactory. It is well, of course, to remember at the present day that other methods than light and x-ray treatment can produce successful results in lupus, but we must confess that we think that the employment of the x rays would have materially shortened the duration of treatment in some at least of these cases.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

THE next quarterly or general meeting of the above society will take place at 11, Chandos-street, Cavendish-square, London, W., under the presidency of Dr. Ernest W. White, immediately after the extraordinary general meeting which is summoned for 3 o'clock in the afternoon of Wednesday, Nov. 18th. Dr. Nathan Raw will read a paper on the Relation of Mental Symptoms to Bodily Disease with special reference to the Treatment of Temporary Forms of Insanity *outside* Lunatic Asylums. Dr. R. S. Stewart will read a paper entitled "The Mental and Moral Effects of the South African War, 1899-1902, on the British People." These papers will be preceded by a short lantern demonstration of microscopical slides illustrating Fragilitas Ossium in the Insane by Dr. W. Maule Smith. The members will afterwards dine at the Café Monico, Piccadilly Circus, W., at 7 o'clock, the price of

the dinner ticket being 7s. 6d. Names of those intending to dine should be sent to Dr. T. Outterson Wood, 40, Margaret-street, Cavendish-square, London, W.

RADIUM IN CANCER.

A QUANTITY of pure radium has been generously placed at the disposal of a member of the staff of the Cancer Hospital, Fulham-road, London, S.W., and the staff are making arrangements for an extensive trial of this new method of treatment. With the number of inoperable cases at their disposal the staff will be able to give the treatment a fair and exhaustive trial.

RESIGNATION OF THE VIENNA MEDICAL CHAMBER.

THE members of this chamber, to which is confided the professional control of the medical men in Vienna, resigned in a body on Nov. 7th. This is one result of a struggle which has been continued for some time between the anti-Semites who are members of the Landtag with the Governor of Lower Austria on the one side and the Viennese medical men and university professors, who are mostly Jews, on the other. The quarrel is stated to have begun in connexion with the question of vivisection, a number of members of the Diet having accused the medical men of making experiments on animals in contravention of the vivisection law, of performing illegal operations on poor people, and of surreptitiously obtaining parts of dead bodies. Our Vienna correspondent's report shows that the whole movement is anti-Semitic rather than sentimental.

A POPULAR EXPOSITION OF ANKYLOSTOMIASIS.

THE principal journals connected with the technical trades and industries follow the sound policy of very seldom admitting medical questions into their columns, but it is an old maxim that circumstances justify occasional departures from general rules and the *Colliery Guardian*, recognising this, has appointed a special commissioner to write for it a series of articles on ankylostomiasis. Our readers are familiar with the fact that this intestinal parasite, so common in the tropics, many years ago attracted attention on account of the havoc which it caused among the men engaged in railway tunnelling in Switzerland, and we have also had to record that the parasite has now made its appearance amongst miners both in Germany and more recently in Cornwall.[1] The first article, described as "introductory," appeared in the *Colliery Guardian* of Nov. 6th and is evidently the work of a very competent writer. It deals with the natural history and appearance of the parasite, the treatment of the disease, and the prophylactic measures required. This latter is, of course, by far the most important part of the subject and resolves itself into inducing the men not to defecate on the ground in the mines. Our contemporary gives copious illustrations, not only of the parasite and its eggs in various stages of development, but also of the arrangements of water-closets, dry-earth closets, and baths provided above ground by Westphalian and Belgian mine owners for the use of the men. Of more consequence still, however, is the system of pails provided for defecation underground. It is hardly to be expected that the average pitman will welcome these innovations rapturously, and one effect which may be expected from the treating of this subject in a non-medical journal will be that persons occupying positions of some authority in mines will gradually become convinced of the advantage of carefully attending to the measures of prevention which helminthologists and medical men have long ago defined. It will be useless to leave the matter in the hands of the men; supervision will be required. In forthcoming articles the history of the outbreak at Brennberg in Austria will be described and a detailed account given of the regulations issued by the German Government for the purpose of combating the disease.

[1] THE LANCET, Nov. 22nd (p. 1391), 1902; March 14th (p. 765), ay 2nd (p. 1276), and June 27th (p. 1853), 1903.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THREE lectures on the Development and Morphology of the Sternum have just been delivered in the Royal College of Surgeons of England by Professor Andrew Melville Paterson (Hunterian Professor). The concluding lecture, which was delivered yesterday (Friday), dealt with (1) variations in the form of the sternum; (2) its comparative anatomy and morphology; and (3) its teratology. Three lectures on the Early Stages in the Development of Mammalian Ova and the Formation of the Placenta in different Groups of Mammals will be delivered in the theatre of the College by Professor Arthur Robinson (Hunterian Professor) on Nov. 16th, 18th, and 20th, at 5 P.M. each day. The first lecture will deal with the structure of the ovum, its coverings, maturation, fertilisation, and segmentation. The second and third lectures will describe the formation and the structure of the placenta in a variety of animals and in the human subject.

SPONGES IN MILITARY SURGERY.

THE *Deutsche Militärarztliche Zeitschrift* for July, 1903, contains an article, written in collaboration by Dr. Deeleman and Dr. Varges, on the employment of sponges for surgical purposes on active service. Of late years bacteriology has demonstrated the fact that in spite of attempts at disinfection and sterilisation sponges that have been used for hospital work are liable to convey contagion. The practice amongst surgeons at present is to dispense as far as possible with the use of sponges and after an initial exposure to contamination to discard them altogether. In the opinion of Dr. Deeleman and Dr. Varges there is in reality no need for this extravagance, especially on active service where bulk and weight are most important considerations with regard to surgical material. Disinfection by steam under pressure or by boiling in plain water, or in soda solutions, or in antiseptic solutions of any description is inadvisable, because the sponges are made hard during the process and lose, moreover, their elasticity. According to the regulations in force in the German army the process of sterilisation for sponges should be carried out in the following manner. In the first place as much of the foreign matter as possible should be got rid of by repeated washings in hot water. The sponges are then to be immersed during 12 hours in an aqueous solution of corrosive sublimate (5 per 1000), to which glycerine in the proportion of 20 per cent. has been added. Dr. Deeleman and Dr. Varges believe that this procedure occupies more time than could usually be spared on active service. No doubt corrosive sublimate is the best of all disinfectants, but on a campaign it is necessary that its antiseptic action should be facilitated by the preliminary removal of coarse impurities such as blood and pus in some quicker way than by washing in hot water. In their opinion sponges that have been used should first be placed for 15 or 30 minutes in hot water containing 5 per cent. of ammonia (density 0·960). Having been removed and squeezed they should next be washed in a 5 per cent. carbolic solution until they part with their viscosity and become once more soft and elastic. The sterilisation is then to be completed by immersion during two hours in the ½ per cent. solution of corrosive sublimate. Should time press the duration of the steeping may be shortened to one hour provided that the temperature of the sublimate solution be at least 50° C. Dr. Deeleman and Dr. Varges have verified this process by bacteriological experiment. Thanks

to it complete sterilisation of moderate-sized sponges can be effected in three, or at most four, hours, whereas according to the official method the time occupied is 12 hours. Sponges for use on active service should not be packed in canvas but should be compressed and placed in bags made of sterilised parchment.

THE SOCIETY OF ARTS.

THE Society for the Encouragement of Arts, Manufactures, and Commerce, to give that well-known body its full title, is now entering on its 150th session and the opening meeting will be held on Nov. 18th at the society's rooms, John-street, Adelphi, W.C., when an address will be delivered by Sir William Abney, vice-president and chairman of the council. The Wednesday evening meetings will commence on Nov. 25th, when Mr. G. F. Parker will give an address on the Universal Exposition to be held at St. Louis, U.S.A., in 1904. The Cantor Lectures, delivered weekly on a variety of technical subjects of interest, will commence on Nov. 23rd and will continue up to the month of May.

THE TESTING OF THE EYES OF SCHOOL BOARD CHILDREN.

SOME correspondence has recently taken place between the secretary of the London Hospital and the authorities of the School Board for London dealing with a question of considerable importance—namely, upon whom devolves the duty of testing the eyesight of the School Board children? The circumstances of the case are these. On Oct. 6th last a letter was addressed by the secretary of the London Hospital to the School Board for London complaining that so large a number of children had been sent from the Board to have their eyesight tested as seriously to interfere with the ordinary work of the surgeon in charge of the ophthalmic department and that this gentleman, Mr. A. B. Roxburgh, found himself unable to examine them in a manner satisfactory to himself or advantageous to the children; that, as a matter of fact, there were no less than 180 cases waiting to be tested and that 50 had presented themselves on a single day. The secretary added that Mr. Roxburgh had stated that he did not feel himself able to attend on any one day to more than ten School Board cases in addition to his ordinary work, and the committee of the hospital had given instructions that for the present, pending the action of the School Board, no more eye-testing should be done for the Board at the hospital. The reply of the School Board, founded on its own medical officer's report, was to the effect that no instructions were given to the parents the eyesight of whose children was defective to apply to any particular hospital, but that they were simply recommended to procure medical advice and that in the opinion of the Board it was the duty of the officer in charge of the ophthalmic department of the hospital to attend to all cases that presented themselves. It was broadly hinted that if the ophthalmic surgeon and his assistants were unable to cope with the increase of the patients it would be well for the hospital to augment the staff. The School Board took the opportunity of bringing under the notice of the committee of the London Hospital two cases, both of which, it would appear, were particularly hard. In one the child, though wet, poorly clad, badly shod, and hungry, was stated to have been refused attention simply on the ground that she had come from the London School Board; in the other it was alleged that the patient, after waiting for two hours, was dismissed without being attended to because the surgeons were sick and tired of the London School Board cases. We do not take for granted the accuracy of this account of the demeanour of the hospital officials, but any how they could plead that they were only acting in accordance with their instructions. We desire to consider the real gist of the matter. The time at the disposal of a surgeon in active practice to spend on gratuitous patients is not unlimited. Most of the cases sent by the School Board to procure medical advice were probably cases of asthenopia arising from hyperopia, and in some more or less astigmatism would certainly be present. If from ten minutes to a quarter of an hour be allowed for the determination of an uncomplicated case of hyperopia, and half an hour for a case of hyperopia complicated with astigmatism, a much longer time and two or three visits being sometimes required, it is clear that the demand on the time of even half a dozen assistants is immense and that allowance must be made for the best-tempered man when in addition to all his other work, including operations, he is suddenly confronted with 50 new cases in which the refraction has to be ascertained with an approach to accuracy. It hardly seems fair that the duty of attending and prescribing appropriate glasses for so many cases should rest with the hard-worked surgeon of a special department of a general hospital, whose time is necessarily to a large extent otherwise occupied.

IN the list of Birthday Honours are included the names of Mr. J. G. Craggs, honorary secretary of King Edward's Hospital Fund, and Mr. A. R. Manby, M.V.O., M.D. Durh., surgeon-apothecary to the King and the Prince of Wales. Both these gentlemen well deserve the knighthood which has been conferred upon them. Captain T. H. M. Clarke, D.S.O., R.A.M.C., has received a Companionship of the Order of St. Michael and St. George for services in Crete, and Mr. Robert Bell, M.D., F.R.S., acting director of the Department of Geological Survey, Canada, has been appointed a Companion of the Imperial Service Order.

THE annual dinner of the British Gynæcological Society will take place at the Café Monico, Piccadilly Circus, London, W., on Friday, Nov. 27th, at 7.30 P.M. Communications on the subject should be addressed to the honorary secretaries, Dr. J. H. Swanton, 40, Harley-street, Cavendish-square, W., and Dr. S. J. Aarons, 14, Stratford-place, W.

THE fifth annual dinner of the Medical Graduates' College and Polyclinic will be held at the Trocadéro Restaurant, Piccadilly Circus, London, W., on Thursday, Dec. 3rd, at 7.30 P.M. Mr. James Cantlie will preside. Those wishing to be present should communicate with Mr. A. E. Hayward Pinch, 22, Chenies-street, W.C.

THE next session of the General Council of Medical Education and Registration of the United Kingdom will commence on Tuesday, Nov. 24th, at 2 P.M. at 299, Oxford-street, London, W., the President, Sir William Turner, K.C.B., in the chair.

ON Nov. 6th Mr. John Newport Langley, D.Sc., F.R.S., Fellow of Trinity College, was elected to fill the professorial chair in physiology in the University of Cambridge, vacant by the resignation of Sir Michael Foster, M.P.

Dr. Charles J. Martin, F.R.S., has now entered upon his duties as director of the Lister Institute of Preventive Medicine and in future the administrative work of the institute will be under his control.

Her Majesty the Queen has graciously consented to become the first Lady Governor of St. Bartholomew's Hospital.

ST. BARTHOLOMEW'S HOSPITAL.

AT a general court of governors held on Nov. 5th, about 70 governors being present, the following motions, which were proposed by Mr. CHARLES ALFRED CRIPPS, K.C., M.P., and seconded by Sir WILLIAM S CHURCH, Bart., K.C.B., President of the Royal College of Physicians of London, were carried with only one dissentient, viz. :—

1. That this court desires to record its unqualified satisfaction that the Mansion House Committee, after impartial and exhaustive inquiry, have come to the following conclusions, viz.: (*a*) That it is impossible, in the public interest, to remove the hospital from its present site; (*b*) that the additions to, and re-arrangement and improvement of, the existing buildings, as proposed by the governors, are absolutely necessary for continued efficiency in the treatment of patients and for bringing the hospital in all departments up to the standard of modern sanitary and scientific requirements; (*c*) that an appeal to the public to supply the cost of the requisite new buildings and improvements is fully justified, it having been shown to be impossible for the hospital to provide the same out of its own resources; (*d*) that the reputation and character of the hospital have been fully vindicated and that its administration has been conducted in a wise and enlightened spirit with due regard to economy and to the best interests of the patients.

2. That the court begs to offer to the gentlemen who served on the Mansion House Committee its cordial thanks for the large amount of time and the great attention bestowed by them on all matters connected with their inquiry.

3. That in the general scheme of rebuilding provision be made for: (*a*) additional operating theatres; (*b*) new casualty and out-patient departments; (*c*) new nurses' home; (*d*) new quarters for the resident medical and surgical staff; (*e*) an isolation block and other new ward blocks to supply the place of those to be demolished; (*f*) new mortuary, post-mortem rooms, and pathological department; (*g*) internal structural re-arrangement of the east, west, and south wings of the hospital.

4. That the house committee with power to add to their number be requested to determine, after consultation with the medical staff, by which of the several plans submitted by the architects, subject to such modifications as from time to time appear desirable, provision for the foregoing purposes can best be secured; but that it be an instruction to the house committee to carry out the recommendation of the Mansion House Committee as regards the out-patient department as shown on Plan No. 6 laid before that committee.

5. That the first block to be built be the new casualty and out-patient departments, dispensary, &c., and the new operating theatres; that the nurses' home be next built; and that the remaining blocks be built in such order as, having regard to their relative urgency, may be considered most expedient and convenient for the general work of the hospital.

6. That the medical staff be consulted from time to time on all details that affect the sanitary arrangements, the treatment of the patients, or the interests of the medical school.

7. That the treasurer and almoners be authorised to make arrangements from time to time for the temporary use of such of the Christ's Hospital buildings as may be necessary for carrying on the work of the hospital. Also that they be given authority to make any provision they may think proper for officers and servants whose present quarters are destroyed or interfered with thereby.

8. That application be made to Parliament in the ensuing session for power to the governors to use for the purposes of the hospital in connexion with the proposed new buildings and improvements the site of the church of St. Bartholomew-the-Less and the burial ground adjoining within the hospital precincts, and for the union for ecclesiastical purposes of the parish of St. Bartholomew-the-Less with the adjacent parish of St. Bartholomew-the-Great.

9. That after the Lord Mayor elect has entered upon office the treasurer and almoners do wait upon him with a request from this general court of governors that at some convenient date he will convene a meeting of the citizens for the purpose of raising the requisite funds for the new buildings and improvements needed.

ASYLUM REPORTS.

Cork District Asylum (Annual Report for 1902).—The average number of patients resident during the year was 1613, comprising 867 males and 746 females. The admissions during the year amounted to 308—viz., 160 males and 148 females. Of these 267 were first admissions. Dr. Oscar T. Woods, the medical superintendent, states in his report that the admissions during the year are 15 over the average of the last ten years. "Many of these were caused by attacks of insanity coming on at the age of puberty, in almost all of whom there was an hereditary predisposition." The recovery-rate is greater among the married than among the single, so that "there are at present in the asylum 1053 single and only 343 married patients." "In many of my annual reports," says Dr. Woods, "I have recorded my opinion that until a definite effort is made to check its hereditary transmission insanity will go on increasing; intoxications, ill-health, &c., act as exciting causes to bring on insanity; but in nearly all these cases there is the predisposing cause of heredity lying dormant to be lit up at the critical epochs of life by any exciting cause." Reviewing the type of patients admitted into the asylum, says Dr. Woods, "I have formed a strong opinion that there is much unregistered insanity still in the country and much neurotic disease existing to be turned into active insanity by the slightest exciting cause." The number of patients discharged as recovered during the year amounted to 122—viz., 53 males and 69 females, or 7·6 per cent. of the average number resident. The deaths during the year amounted to 106, or 6·6 per cent. as calculated on the same basis. Of the deaths one was due to general paralysis of the insane, four were due to cerebral hæmorrhage, five to senile decay, nine each to bronchitis and cardiac disease, 16 to cerebral atrophy, 34 to pulmonary and other forms of tuberculosis, and the rest to other causes. The inspector of lunatics states in his report that while the condition of the asylum "is in many respects satisfactory and the time and care which the medical superintendent devotes to his duties are beyond all praise, it cannot be pretended that an institution for the insane fulfils its primary object when it does not afford sufficient accommodation for the number of patients needing its shelter." It is pointed out that the overcrowding which exists at present should be relieved. The nursing and care of the patients are stated to be excellent. It is also pointed out that the provision of increased accommodation is a question which can no longer be postponed but should be practically met and settled by the committee of management which seems to have been hitherto rather lax in discharging this obligation.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 76 of the largest English towns 8743 births and 4691 deaths were registered during the week ending Nov. 7th. The annual rate of mortality in these towns, which had been 15·8, 15·9, and 16·3 per 1000 in the three preceding weeks, declined again last week to 16·2 per 1000. In London the death-rate was 16·1 per 1000, while it averaged 16·3 in the 75 other large towns. The lowest death-rates in these towns were 5·7 in King's Norton, 6·4 in Walthamstow, 7·4 in Newport (Mon.), 8·0 in Hornsey and in Smethwick, 8·3 in Bournemouth, 8·7 in Hastings, and 8·8 in Leyton and in Portsmouth; the highest rates were 20·8 in Gateshead and in Tynemouth, 21·0 in Oldham, 22·0 in Burnley, 22·3 in Salford, 22·4 in Swansea, 22·6 in Wigan, 22·8 in Warrington, and 23·4 in Stockport. The 4691 deaths in these towns last week included 419 which were referred to the principal infectious diseases, against 635, 532, and 523 in the three preceding weeks; of these 419 deaths, 158 resulted from diarrhœa, 56 from "fever" (principally enteric), 55 from measles, 55 from diphtheria, 54 from whooping-cough, and 41 from scarlet fever, but not one from small-pox. No death from any of these principal infectious diseases was registered last week in Croydon, Willesden, Hornsey, Hastings, Brighton, Devonport, Smethwick, Derby, or Wallasey, while they caused the highest death-rates in Ipswich, Hanley, Warrington, Rotherham, York, Sunderland, and Merthyr Tydfil. The greatest proportional mortality from measles occurred in Ipswich, Warrington, Rotherham, and Sunderland; from scarlet fever in Northampton and Merthyr Tydfil; from diphtheria in Hanley; from whooping-cough in Rochdale and Halifax; and from diarrhœa in Hanley, King's Norton, Gateshead, and Newcastle-on-Tyne. The mortality from "fever" showed no marked excess in any of the large towns. No death from small-pox was registered last week in any of the 76 large towns. The Metropolitan Asylums hospitals contained 43 small-pox patients at the end of last week, against 11, 34, and 42 at the end of the three preceding weeks; five new cases were admitted during the week, against one, 26, and 12 in the three preceding weeks. The number of scarlet fever cases under treatment in these hospitals and in the London Fever Hospital, which had been 1861, 1858, and 1828 on the three preceding Saturdays, had risen again to 1854 on Saturday last, Nov. 7th; 224 new cases were admitted during the week, against 208, 209, and 199 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 175, 194, and 260 in the three preceding weeks, further rose last week to 271, but were 27 below the number in the corresponding period of last year. The causes of 54, or 1·2 per cent., of the deaths in the 76 large towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham,

Bristol, Salford, Leeds, Newcastle-on-Tyne, and in 45 other smaller towns; the largest proportions of uncertified deaths were registered in Northampton, Liverpool, St. Helen's, Preston, Gateshead, and Rhondda.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in eight of the principal Scotch towns, which had been 16·1, 16·7, and 17·0 per 1000 in the three preceding weeks, declined again to 15·8 per 1000 during the week ending Nov. 7th, and was 0·4 per 1000 below the mean rate during the same period in the 76 large English towns. The rates in the eight Scotch towns ranged from 12·8 in Dundee and in Greenock and 13·8 in Paisley, to 16·9 in Glasgow and 23·2 in Perth. The 516 deaths in these towns last week included 19 which were referred to measles, 15 to diarrhœa, six to diphtheria, six to whooping-cough, five to scarlet fever, one to small-pox, and one to "fever." In all, 53 deaths resulted from these principal infectious diseases last week, against 72, 77, and 62 in the three preceding weeks. These 53 deaths were equal to an annual rate of 1·6 per 1000, which was 0·2 per 1000 above the mean rate last week from the same diseases in the 76 large English towns. The fatal cases of measles, which had been 14, 16, and 11 in the three preceding weeks, rose again last week to 19 of which 18 occurred in Glasgow. The deaths from diarrhœa, which had been 35, 39, and 33 in the three preceding weeks, further declined to 15 last week, and included six in Glasgow, four in Dundee, and three in Aberdeen. The fatal cases of diphtheria, which had been four and five in the two preceding weeks, further rose last week to six, of which four were registered in Glasgow and two in Edinburgh. The deaths from whooping-cough, which had been eight and seven in the two preceding weeks, further declined to six last week and included two in Glasgow and two in Edinburgh. The fatal cases of scarlet fever, which had been four in each of the two preceding weeks, increased last week to five, of which two occurred in Glasgow and two in Edinburgh. The death from small-pox was registered in Glasgow where the fatal case of "fever" also occurred. The deaths referred to diseases of the respiratory organs in these towns, which had been 82, 92, and 108 in the three preceding weeks, declined to 107 last week and were 43 below the number in the corresponding period of last year. The causes of 18, or nearly 4 per cent., of the deaths registered in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 18·6, 21·5, and 21·2 per 1000 in the three preceding weeks, rose again to 21·7 per 1000 during the week ending Nov. 7th. During the past four weeks the death-rate has averaged 20·8 per 1000, the rates during the same period being 15·6 in London and 14·7 in Edinburgh. The 158 deaths of persons belonging to Dublin registered during the week under notice were four in excess of the number in the preceding week and included two which were referred to the principal infectious diseases, against nine, 13, and seven in the three preceding weeks; of these two deaths, one resulted from "fever" and one from diarrhœa. The death-rate from these diseases was 0·3 per 1000; the death-rate from the principal infectious diseases last week was 1·4 per 1000 in London and 1·1 in Edinburgh. The 158 deaths in Dublin last week included 32 of children under one year of age and 39 of persons aged 60 years and upwards; the deaths of infants showed a slight decline from the number in the preceding week, while those of elderly persons were somewhat in excess. Three inquest cases and two deaths from violence were registered, and 64, or more than a third, of the deaths occurred in public institutions. The causes of nine, or nearly 6 per cent., of the deaths registered in Dublin last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE undermentioned have been appointed Surgeons:—Arthur Robertson Brailey and Frank Wybourn Smith.

The following appointments are notified:—Surgeons: E. Cooper to the *President* for three months' hospital study and P. H. Bannister to the *Northampton* (dated Nov. 11th); and W. R. Center to the *Pembroke* (dated Nov. 7th).

ARMY MEDICAL STAFF.

Colonel W. L. Gubbins, M.V.O., Royal Army Medical Corps, to be Surgeon-General, vice Sir W. D. Wilson, K.C.M.G., retained on the Active List as a Supernumerary to the Establishment (dated August 27th, 1903).

ROYAL ARMY MEDICAL CORPS.

Colonel G. D. N. Leake, Principal Medical Officer at Woolwich, will shortly embark for duty in India. Captain A. E. C. Keble is appointed to the medical charge of the Hospital for Soldiers' Wives and Children, officers of the staff, and their families, Chatham, vice Lieutenant-Colonel R. Jennings.

ARMY MEDICAL RESERVE OF OFFICERS.

The undermentioned Surgeon-Majors to be Surgeon-Lieutenant-Colonels (dated Nov. 11th, 1903):—R. R. Brown, A. D. MacDonald, C. Arrol, W. J. Naismith, D.S.O., E. W. Symes, R. De La P. Beresford, ‖C. W. Thorp, T. J. Aubin, R. B. Smith, R. T. Cæsar, E. B. Reckitt, R. A. S. Daly, A. Chawner, E. J. Lawless, F. E. Fenton, F. L. Stevenson, R. L. Sparrow, F. J. Walker, W. C. Cowan, A. T. Wear, J. H. Maclean, W. Fergusson, W. L. Stewart, J. W. Hodgson, and A. Lingard.

The undermentioned Surgeon-Captains to be Surgeon-Majors (dated Nov. 11th, 1903):—C. N. Lee, R. T. Meadows, J. G. Saville, G. M. Lowe, F. V. Adams, D. T. Key, E. H. Moore, R. J. M. Coffin, S. S. Hoyland, J. Adam, W. Kinnear, H. R. Bramwell, J. A. Rigby, J. T. Thomas, W. L. Edwards, and H. J. Mackay.

The undermentioned Surgeon-Lieutenants to be Surgeon-Captains (dated Nov. 11th, 1903):—C. Boyd, J. Taylor, E. M. Callender, H. G. O. Collett, E. W. Livesey, J. P. S. Ward, J. S. Mackay, L. W. Pockett, R. T. Ferguson, C. G. Maclagan, J. M. Moir, W. A. Griffiths, R. H. Luce, A. H. Vernon, J. C. Wright, G. Melville, J. McMullen, D. R. Dobie, E. W. F. MacW. Bourke, A. Henderson, E. E. Dyer, A. Y. Pringle, J. S. Swain, H. M. Brownfield, H. N. A. Taylor, T. F. Devane, A. Ehrmann, H. Fox, L. L. Hanham, and A. Hilton.

Surgeon-Lieutenant-Colonel C. M. MacKnibban having attained the prescribed limit of age is removed from the Army Medical Reserve of Officers.

Surgeon-Captain C. A. Corke, 2nd Volunteer Battalion Worcestershire Regiment, to be Surgeon-Captain (dated Nov. 7th, 1903).

Lieutenant A. E. L. Wear, Royal Army Medical Corps Volunteers, to be Surgeon-Lieutenant (dated Nov. 7th, 1903).

VOLUNTEER CORPS.

Royal Garrison Artillery (Volunteers): 2nd Middlesex: Surgeon-Lieutenant E. A. Snape to be Surgeon-Captain (dated Nov. 7th, 1903).

Royal Engineers (Volunteers): 1st West Riding of Yorkshire (Sheffield): Alan Charles Turner to be Surgeon-Lieutenant (dated Nov. 7th, 1903).

Rifle: 3rd Volunteer Battalion the King's (Liverpool Regiment): Surgeon-Captain J. McMullen is retired under paragraph 118 Volunteer Regulations (dated Nov. 7th, 1903). 2nd (Westmoreland) Volunteer Battalion the Border Regiment: Surgeon-Captain W. B. Cockill is borne as Supernumerary whilst commanding the Lancaster and Border Volunteer Infantry Brigade Bearer Company (dated Nov. 7th, 1903). 1st (Hallamshire) Volunteer Battalion the York and Lancaster Regiment: Surgeon-Lieutenant-Colonel J. W. Martin resigns his commission with permission to retain his rank and to wear the uniform of the battalion on retirement (dated Nov. 7th, 1903); William Smith Kerr to be Surgeon-Lieutenant (dated Nov. 7th, 1903).

DEATHS IN THE SERVICES.

Surgeon-Major-General James Davis, Army Medical Staff (retired), at his residence at Southsea on Nov. 8th, aged 68 years. He entered the army as assistant surgeon in 1858, served with the 57th Regiment in the New Zealand war in 1861, and was present at the repulse of the attack on Camp Nukumaru and in the engagement at Kakaramea. He became surgeon-major in 1873, surgeon-major general in 1894, and retired in the following year.

Correspondence.

"Audi alteram partem."

THE FUTURE OF ST. BARTHOLOMEW'S HOSPITAL.

To the Editors of THE LANCET.

SIRS,—The present position of the controversy regarding the provision of an adequate scheme for the reconstruction of St. Bartholomew's Hospital is well calculated to cause widespread anxiety and disgust. The official proposals include an appeal to the public for a sum of £350,000—an appeal which obviously must fail unless the public judgment is first convinced. At the same time experts who speak with authority denounce the official scheme as seriously defective in respect both to present demands and future development. It is pointed out, for example, that the received plans include such a highly objectionable feature as the retention for the reception and treatment of in-patients of buildings which have been used for this purpose for at least 150 years and in which it is impossible to obtain a proper supply of sunlight and fresh air. Further, the hygienic condition of the hospital will be made dangerous by adding an additional storey to the north wing and by crowding an already crowded site with many additional buildings. The scheme, in short, instead of representing the highest level of hospital construction and sanitary efficiency, will merely put a modern gloss on old faults and will provide a hospital having grave and essential defects. The corollary is inevitable—that the future St. Bartholomew's Hospital will be promptly recognised as an exhibition of the folly of half measures and that its decline in public and professional estimation is certain. This, in essence, is the criticism passed by responsible voices on the plan of the Mansion House Committee now before the public for the reconstruction of a hospital the premier position of which in relation both to historical associations and practical achievement is recognised in all parts of the empire. This fact alone is sufficient to show that the scheme is foredoomed to failure. For efficiency the public sympathy may readily be enlisted, but it has no voice or help for a policy of shreds and patches.

Criticism in the present instance, however, has not merely a destructive aspect. On the contrary, it propounds an alternative scheme which, if adopted, will secure for the hospital everything that modern experts advise and will at the same time guarantee the opportunity for such developments as are probable in the future, the estimated outlay here being a sum of £600,000. These, in brief, are the rival policies presented to the public and it needs no special gift of discernment to anticipate that the more radical proposal is the more likely to attract interest and support. St. Bartholomew's Hospital has a wide and well-deserved fame. Its traditions of efficiency and success may be traced through the medical history of 800 years. From its walls have issued for generations countless numbers who in all parts of the world have practised the art of healing. Its physicians and surgeons include the many names which are the cherished heritage of the profession. Enthusiasm on behalf of such an institution only waits to be aroused. There now exists an opportunity to add to the noble history of the past the developed efficiency which the modern spirit requires. Is it reasonable to believe that energy will awake on behalf of a proposal to meet this opportunity with half-hearted and temporising measures? Certainly it may be taken for granted that the controversies of the last 12 months have developed in the public a feeling of hesitation and doubt and that the more recent criticisms command a degree of confidence which official silence will altogether fail to disturb. Before they offer their support the public will insist on knowing all the facts.

In this respect one of the most remarkable features in this prolonged controversy has been the absence of any expression of opinion by the medical staff of the hospital. Doubtless the views of the staff were officially submitted to the Mansion House Committee but they have never reached either the governors of the hospital or the general public. The responsibility of the staff in this matter is a considerable one. They are in a very special sense aware of the existing defects in the hospital. They are also aware of the changes necessary to remedy these defects. Further, it rests with them to estimate the probable future demands both of hospital treatment and medical education. Their judgment and decision on these points must necessarily carry substantial weight and in the essential interests of the hospital it is imperative that their opinions should be publicly pronounced. With them in a large measure rests the decision whether "Bart.'s" shall continue and enlarge its noble history or shall dwindle into a second- or third-rate position among the medical institutions of the metropolis.

Public opinion will certainly demand that London shall have at least one modern hospital and medical school replete in every respect. The inclination of the City and, indeed, of all parts of the country, is to support the position and claim of St. Bartholomew's Hospital. But there are other candidates and their virtues will not be neglected on merely sentimental considerations. It is only an efficient programme which will secure public support. There are rumours afloat that the silence of the hospital staff is due to a fear of offending one or more august patrons of the hospital. Considering that the most distinguished personage in the realm and his royal son have both identified themselves with a policy of hospital thoroughness and efficiency these rumours may be neglected. In any event the claim for a clear statement is imposed by the sanction of duty. It rests with the staff to satisfy public opinion and in the absence of this the financial success of any scheme is more than doubtful. They have still another opportunity. "Bart.'s" men, proud of their *alma mater*, are to be found in influential positions all over the world. A courageous appeal from the present staff, accompanied by the assurance that the future of the hospital and school is at stake, would go a long way to raise the money necessary for a complete reconstruction. The precedent of "Guy's" is a full justification for this statement. But so long as the medical staff stand silent so long will there be doubt and mistrust and the public will remain aloof. The opportunity for a large and worthy success now exists. Is it to be lost through a faint-hearted and short-sighted policy backed by the supineness of the medical staff and old "Bart.'s" men all over the country? I cannot believe it.

I am organising a definite, purposeful, and sustained opposition to the scheme of the Mansion House Committee, which, if persisted in, must ultimately ruin St. Bartholomew's Hospital. I am a governor of St. Bartholomew's Hospital and although the fight will be earnestly maintained by us laymen the continued silence of the medical staff must render a difficult task doubly difficult. If it be true that the medical council made representations to the treasurer before the meeting of the governors on Nov. 5th to the effect that the site must be larger and that the wards for the reception of patients must be entirely modern and up to date that report has been kept back from the governors. We ought, however, to know the facts.

I am, Sirs, yours obediently,

ANDREW MOTION,
Chairman of the Cannon Brewery Co., Clerkenwell, E.C.

Banbury, Nov. 10th, 1903.

*** Mr. Motion is evidently not aware of the action which the medical staff has taken in this matter for some years. Being a governor of the hospital he surely could obtain access to the various reports on the subject which the medical staff has sent to the authorities. The views of the staff were published substantially in the columns of THE LANCET a fortnight ago.—ED. L.

THE UNIVERSITY OF LONDON AND THE ROYAL COLLEGES OF PHYSICIANS OF LONDON AND SURGEONS OF ENGLAND.

To the Editors of THE LANCET.

SIRS,—There seems to occur a primary sense of perplexity about introducing the new final State's examination or Doctorate in Medicine in the proposed Medical Acts Amendment Bill, but clearly the rights of the older corporate examining bodies cannot be annulled without negotiations which have not taken place, and, besides, there are the difficulties of authority where we, unfortunately perhaps, have not got State control of, nor a State Minister of, education. Meanwhile the worried London student of medicine is still left ding-donging at the final Hall, then the final Colleges, then the final M.B., then

the final Fellowship examinations, and even then will not obtain the expected or desired *University* M.D., a unique and silly arrangement compared with any other part of the civilised world. This shows the necessity of reform. With regard to any complete proposal, before endeavouring to bring the great medical bodies and the standard medical teaching interests in London together, it is essential to bear in mind that all the commissions and schemes dealing with this question, and including the Jenner suggestions in 1885, were absolutely discarded in favour of the reform of the University of London. So, evidently, the University of London Act, 1898, alone shows at the crest of practical politics. Now, it happens that the present petition of the London Licentiates' and Members' Society to the University of London is entirely founded on the Jenner proposals, yet it goes, not again to the Royal Colleges where the same petition has been rejected, but to the University, and it claims simply an immediate entrance to a retrospective degree for all old London Conjoint men. There is ample reason, even if it were hoped otherwise, for the University to object to such an intrusion; it would at least expect the Royal Colleges to make the first move.

What is much more important for the welfare and medical interests of London, and what most people wish to see accomplished, is the joining on mutual terms of advantage of the ancient Royal Colleges of Physicians of London and Surgeons of England with the new and, perhaps, more intellectual University of London or at least as far as its examinations go. This can perfectly easily be done under the Charter Act of 1898, Section 4, and Statutes 119 and 123. The same courses of lectures could be arranged and slight adjustments made in the closely similar examinations, which would end in giving London medical students a proper standing for the actual work to be done. What is wanted is one compact, and representative medical faculty in the University, appealing to London and popular support.

It is most impolitic to debar capacity for the higher positions in the medical profession to the holders of the diplomas. The diplomates cannot do better than their training or their opportunity allows them, and the fact that they have started for the "*licence*" standard spoils their whole career down to the grave. If all started in the University the grossly unfair handicapping would be done away with. The disabilities of the Licentiates and Members of the Royal Colleges are well known and they need not be recapitulated; it is little short of a scandal to continue a state of affairs which precludes diplomates from D.P.H. work and house appointments simply because their title is not the current title of the day. The London position is behind that of other nations; in America and in Paris they have long since consolidated their colleges with the universities, and that is what the proposed union between the University of London and the Royal Colleges should insist on.

It may be interesting to note how nearly this reform took shape in the first part of last century. Before and after the foundation of the examining University of London in 1836—the University of London was founded in 1825—the medical students of the Royal Colleges flocked to the University doubtless on the understanding that a "*degree*" course was intended, but in 1866 the numbers quite characteristically dwindled to 163—from 494 in 1839—when it became clear that both bodies had set up a selfish fiscal policy of their own and so stopped this imminent advance and progress. From the first the notion to amalgamate with all the medical interests in the metropolis was probably the best and most conspicuous object in the promotion of London University; that policy at the first meetings was subscribed to by Lord Dudley, Lord Lansdowne, Lord Brougham, Lord John Russell, the Duke of Norfolk, and Campbell, Grote, James Stuart Mill, and John Stuart Mill, which, it must be said, indicated powerful support. We have the same obligations to our own generation still before us. The diplomates of the Colleges ought to act, either with or without the aid of a society, so as to help the councils of their Colleges to initiate and to bring about the movement for unity which has exercised for long some of the highest thinkers in the University as well as in the College Councils. In that way the occupation of the Royal Colleges of Physicians of London and Surgeons of England from gradually but inevitably vanishing may be stopped. If there be no action for unity taken and the arena of the annual College meetings be alone left for discussion of such matters our precious opportunities will somnolently and smoothly drift from one decade into another and the result will be inevitable.

I am, Sirs, yours faithfully,

Bognor, Oct. 31st, 1903. H. ELLIOT-BLAKE

RECURRENT OVARIAN CYSTOMA AND ABERRANT ACCESSORY OVARIAN STRUCTURES.

To the Editors of THE LANCET.

SIRS,—The explanation given by Mr J. D. Malcolm[1] of recurrent ovarian cystoma, of pregnancy after the surgical removal of both ovaries or their destruction by disease, and of other kindred conditions, seems to me to leave something to be desired. I am prepared to admit that some instances of this kind may be ascribed to the retention of fragments of healthy or diseased ovarian tissue detached at the first operation, but I believe that the majority of such incidents cannot be accounted for in this way. Cases of this kind are known to have occurred even after the most radical operations, involving the extirpation *en masse* of the uterus, ovaries, and adnexa, when it is highly improbable that any fragments of the ovaries could possibly have been left behind. Even if the presence of aberrant accessory ovarian structures in the pelvic connective tissue and its vicinity had never been actually demonstrated, I maintain that it would nevertheless be possible for one who had made himself thoroughly acquainted with the *ensemble* of facts relating to conditions of this kind, to predicate that such aberrant structures do exist and that their presence is the cause of most of these curious phenomena.

When Cohnheim first announced his celebrated theory of the origin of tumours from sequestrated fragments of the germinating tissues, very few facts could be adduced in support of it. No one then believed in the possibility of such an amount of developmental irregularity as it presupposed. The light of modern science has, however, effectually dissipated this misconception, and our eyes have been opened to the hidden defects of normality. Sequestrated fragments of the various tissues and organs have now been found to exist in every part of the body that has been specially examined for them. The ovary is no exception to this rule, although gynæcologists have hitherto hardly realised this important fact and its significance.

Although a thorough search, with the best modern appliances, for accessory ovarian structures in the pelvis and its vicinity has not yet been made, yet enough is already known to justify me in stating that these structures, like tuberculous foci in the lungs, are nearly always present. Even as long ago as 1878 Beigel, with only the crudest methods, found accessory ovarian structures in 23 out of 500 necropsies, and since then numerous instances of this kind have been reported (Thumin, Seitz, and others). These structures are commonest in the immediate vicinity of the ovary, to which they are sometimes attached by a fine stalk. As many as six have been demonstrated close to a single ovary. De Sinéty has met with the condition in a newly born infant. Probably most sessile so-called ovarian cysts arise from these structures. But accessory ovarian structures have also been found in situations much more remote from the ovary. Beigel long ago demonstrated their presence in the broad ligament, and many other instances have since been reported. It is to this source that the various ovarian-like tumours that have from time to time been met with in the broad ligament and its vicinity may be ascribed (Vautrin, Terraillon, Brigidi, and others). Many so-called "migrated" ovarian tumours no doubt belong to this category. Lefas discovered an aberrant ovarian structure which comprised a fully developed corpus luteum, connected with one of the fimbriæ of the Fallopian tube, and Thumin has described an ovarian cyst which arose from a structure of this kind. Seitz and others have shown that these aberrant structures may occupy an intra- or extra-peritoneal position. Many instances have been recorded of ovarian like cystomata arising primarily in para-uterine, paravaginal, and paravesical regions, in the round ligaments; and even in the lower part of the abdomen, quite outside the peritoneum (Fergusson, Meredith, Olshausen, Kaltenbach, Winternitz, Hartz, Krönig, Coblenz, and others), which could hardly have had any other

[1] THE LANCET, Oct. 31st, 1903, p. 1227.

origin than aberrant ovarian structures. Dermoid elements and traces of Wolffian rests may be associated with these tumours. The presence of aberrant structures of this kind in various parts of the pelvis and its vicinity, enable us to understand the occurrence of recurrent ovarian cystomata and of the other curious phenomena above mentioned. What is the condition of such structures after the removal of both ovaries? We know that they are then exposed to the stress of enormous formative activity—the so-called compensatory hypertrophy. In these circumstances the limits of physiological activity may easily be overpassed, and when the process becomes pathological it eventuates in the formation either of non-malignant cystoma or of a malignant tumour. Thus may be explained the extraordinary frequency of malignant disease after the removal of both ovaries, to which I have elsewhere called special attention.—I am, Sirs, yours faithfully,

Clifton, Bristol, Nov. 2nd, 1903. W. ROGER WILLIAMS.

EROSIVE GASTRIC ULCERATION.

To the Editors of THE LANCET.

SIRS,—In April, 1902, I exhibited at the Kidderminster Medical Society a girl upon whom I had successfully operated for gastric erosion. The notes of the case were given in your report of the meeting in THE LANCET of April 26th, 1902, p. 1185. I was very much interested to read the case published by my friends Sir Dyce Duckworth and Mr. H. T. Butlin and also your annotation thereon in your issue of Oct. 17th. I thought that it might be interesting to your readers to know that I am able to state that the patient has had no return of her symptoms.

I am, Sirs, yours faithfully,

J. LIONEL STRETTON,
Senior Surgeon, Kidderminster Infirmary and Children's Hospital.

Oct. 20th, 1903.

THE *DE NOVO* ORIGIN OF BACTERIA.

To the Editors of THE LANCET.

SIRS,—In the course of his paper on the *De Novo* Origin of Bacteria in THE LANCET of Oct. 31st, p. 1220, Dr. H. Charlton Bastian refers to a signed article of mine on Leprosy which appeared in the *Quarterly Review* for April, 1903, and from which he quotes. He contends that the verdict given by the Leprosy Commissioners in their report (Calcutta, 1893) was perfectly logical and quite explicable in accordance with known facts. I hope you will allow me to quote a little more at large from my article. I wrote: "Some years ago the Royal College of Physicians of London, in a report on the Mode of Origin and Spread of Leprosy, unfortunately expressed the opinion that it was not contagious. More recently the Leprosy Commissioners in India came to the conclusion that the infectious nature of the disease had been finally established by the discovery of the bacillus and stated 'that the disease was to be classed among the contagious diseases, the influence of contagion being as small as, or even rather less than, in the case of tuberculosis.' They also concluded there was no evidence that leprosy in India was hereditarily transmitted from parent to child and, further, that neither the form of diet nor the sanitary environment of the individual had any specific action in the causation of leprosy. At the same time, the Commissioners added that 'it is probable that bad hygienic surroundings, deficient or improper food, poverty, exposure, and such diseases as syphilis are all factors of great importance in reducing the vital powers of the organism and rendering it more susceptible to attack.' The evidence pointed inevitably to the conclusion that leprosy is an infective contagious disease. But strangely enough, the Commissioners in their final summing up expressed the opinion that leprosy, in the great majority of cases, originated *de novo*. A critic has well said that this conclusion was extraordinary and contrary to the experience of those who had given special attention to the subject in leprous countries. It was all the more extraordinary, I added, seeing that the Commissioners advocated voluntary isolation. Further on in their report the Commissioners remark that both leprosy and tuberculosis are contagious in an equal and minimal degree." I leave it to the reader to judge for himself as to the logic of such reasoning. I would recommend him to read the report of the Leprosy Commission, and also, if I may venture to say so, my *Quarterly Review* article, wherein he will find a succinct survey of leprosy as a whole.

I regret that Dr. Bastian should consider my attitude in the matter intolerant because it clashes with his views on the *de novo* origin of various diseases. I quite thought the *de novo* theory had gone by the board long ago. I regret it all the more as Dr. Charlton Bastian was one of my clinical teachers at University College Hospital. I learnt from him important facts at the bedside, for which I am ready to express my indebtedness. On the other hand, I cannot allow my esteem for him to stifle my own honest beliefs on certain points.—I am, Sirs, yours faithfully,

GEORGE PERNET,
Assistant to the Skin Department, University College Hospital; English Editor of *Lepra*.

Upper Gloucester-place, N.W., Nov. 3rd, 1903.

THE SOCIETY OF MEDICAL PHONOGRAPHERS.

To the Editors of THE LANCET.

SIRS,—May we be permitted as president and officers of the Society of Medical Phonographers to bring the continued existence of the society and its usefulness under the notice of any practitioners or students of medicine who make use of shorthand? Of late the society has not come much under the notice of the profession, but its work continues. Its organ, the *Phonographic Medical Record*, is published monthly and affords the means of obtaining familiarity with medical shorthand, together with definite information on practical medical subjects. The society has also issued a series of small original works in lithographed shorthand with the same object, as well as an extensive vocabulary of convenient outlines and guides to the use of shorthand both by the student and the practitioner. It has also held periodical examinations for students in order to encourage their acquisition and use of shorthand.

The invaluable aid which it can give in medical work, practical and theoretical, in case-taking and note-making, is realised by all who have used it, as it cannot be by others, and the importance of its acquisition before medical studies are commenced is so great that the society has endeavoured by every means to encourage this. But many practitioners who make constant use of shorthand have acquired it long after being engaged in practice. To all, students and practitioners alike, the society is open and its members are ready to give all possible help to those who are endeavouring to obtain the assistance of this time-saving art. The subscription to the society is very small, amounting only to 5*s*. per year for students and 7*s*. 6*d*. for practitioners. The honorary secretary, Dr. Fletcher Beach, will be glad to give any further information and to receive applications for membership.

We are, Sirs, yours faithfully,

DAVID FERRIER, President
E. B. GRAY, W. THOMSON, C.B., } Vice-Presidents.
W. R. GOWERS, G. SIMS WOODHEAD. } Members of Council.
NORMAN PORRITT, Treasurer.
FLETCHER BEACH, Secretary.

Nov. 6th, 1903. Winchester House, Kingston-hill, Surrey

THE RELATION BETWEEN THE SIZE OF THE CHILD AND THAT OF THE PELVIS.

To the Editors of THE LANCET.

SIRS,—The perusal of the leading article in THE LANCET of Oct. 3rd, p. 963, in which you comment on my paper published in the issue of Sept. 26th, p. 885, makes it plain that I have so expressed myself as to appear to claim more for the law I enunciated than I had any intention of doing. I do not seem to have made the heading clear. You remark that I enunciate a "law by which the size of the child is to be determined." What I wrote was "a law by which the size of the child is determined." The former appears to imply a process by which a man may infer the size of the child in a particular case from that of the mother's pelvis; the latter was intended to draw attention to an orderly working of nature in the average.

In the light of your comments it is evident that the fact that I have made no attempt to establish in any degree the relative effect that different causes have in determining the size of the child will lead the reader to suppose that I do not consider the usually accepted ones as potent. This is very far from being the case and the omission to lay stress on these is due to the fact that opportunity to sift such figures as I have accumulated has hitherto been lacking. It is very far from my intention to put forward this law of parallel growth as the only factor determining the size of the child; it is undoubtedly only one of several, but it is one which has hitherto escaped attention but yet merits further investigation, and it is partly for this very reason that I have published the figures, for being no longer in a position to carry on this investigation myself I wish to bring it to the notice of others for confirmation or refutation. You further criticise my paper in two directions—first, as regards facts and, secondly, as regards the inferences to be drawn from them. The facts you object to, first, on the score of the insufficiency of the measurements. The cases are 111 in number and certainly before such a law as I have stated is allowed generally the figures available will have to be much greater; at the same time I think that the very regularity of the parallelism between the size of the conjugate and that of the child is a warranty that further numbers will confirm those given.

You are disposed to think that my figures are not accurate and that accurate figures could only be obtained either by examination on the cadaver or under anæsthesia. Undoubtedly measurements on the cadaver would be most useful, but their accumulation would take very much longer than the accumulation of clinical figures. I do not consider that the condition of anæsthesia would make results more accurate because the recti have usually little influence ten days after delivery in the ease with which the promontory is reached. The muscles are usually still separated and the hand can sink between them without serious resistance. You are further of opinion that it is impossible clinically to estimate the size of the conjugate diameter of the pelvis accurately within a quarter of an inch. This is probably true in any individual case but I think that by taking many measurements the results will be accurate in the average. Even if this conclusion is not correct, it will yet be found that the figures for successive increase of half an inch in the conjugate diameter, concerning the general accuracy of which there can scarcely be any question, are just as striking and as strong evidence of the law which I have put forward.

My conclusions are drawn from averages. That the parallelism of the child and the pelvis is one of average is constantly insisted on in all the tables accompanying the paper and it will not necessarily hold in individual cases except within wide limits. In order to avoid making the paper too long no lists of actual figures were given. As an example of the differences in these I may say that taking the Bengalis with a pelvis estimated at between four and four and a quarter inches in the conjugate diameter the weight of the children varied from four pounds 14 ounces to eight pounds six ounces. This in itself is sufficient proof that other factors than that of the size of the pelvis are concerned in regulating the size of the child and that the size of the latter can only be estimated within wide limits from that of the former. I do not wish to claim that the law which I have enunciated is the only or even the chief law by which the size of the child is determined; but subject to confirmation or refutation I hold that it is a factor, a practically unrecognised factor, and one the relative place of which among the others requires investigation which I am not in a position to carry out myself.

Your objection that normally sized children may be born through a congenitally contracted pelvis need not, I think, invalidate the general law. Other congenital factors may have been stronger and have resulted in the production of a normally sized child. The consideration of the relative influence of these various factors in determining the size of the child, so far as I have figures on which to base conclusions, I have intentionally omitted from my paper and my apparent dogmatism has been due not to any want of appreciation of the importance of these but partly to the wish to emphasise the new factor and partly to the hope that I should find opportunity in the future to sift the evidence satisfactorily.

I am, Sirs, yours faithfully,

CLAYTON LANE, M.D. Lond.,
Captain, I.M.S.

Medical College, Calcutta, Oct. 20th, 1903.

THE M.D. DEGREE OF BRUSSELS.

To the Editors of THE LANCET.

SIRS,—If Dr. N. Leonard will refer the question of the value of the M.D. Brux. to the proper official quarter in Brussels he will find that my statement in THE LANCET of Oct. 17th, p. 1119, is absolutely correct—viz., that the degree does *not* confer the right to practise in Belgium and that the examination is quite a different one from that which the Belgians themselves undergo. A few foreign medical men were formerly authorised to practise a *speciality* in Brussels irrespective of the particular qualifications they held—though similar favours are not now granted. This, I presume, is what Dr. Leonard refers to in his last paragraph in your issue of Oct. 24th. I think if these facts were more widely known fewer Englishmen would be ready to take a degree which is valueless even in the country where it is obtained.

I am, Sirs, yours faithfully,

Ludgate-hill, E.C., Nov. 5th, 1903. P. A. NIGHTINGALE.

SIMPLE CYST OF THE LIVER.

To the Editors of THE LANCET.

SIRS,—Attention having been called to the rarity of simple cysts of the liver in the paper by Mr. Alban Doran in THE LANCET of Oct. 31st, p. 1218, I think it worth while to refer very briefly to one case of my own. I knew at the time I operated on the case that it was a rare one but after reading Mr. Doran's paper it seems to me desirable that it should be recorded.

A woman, aged 63 years, came under my care in hospital in November, 1900, with a smooth round swelling in exactly the position of a distended gall-bladder. She had no symptoms and had noticed the swelling (which was visible) accidentally two months before I saw her. On opening the abdomen I found the whole liver enlarged so that the lower border of the liver reached nearly to the umbilicus, and projecting from it a bluish translucent cyst of the size of an orange. There was no liver tissue on its anterior aspect but it did not quite extend through the substance of the liver below—i.e., it lay above the quadrate lobe. Its wall was very thin, white, and glistening and it contained straw-coloured fluid. It did not in the least resemble hydatid cyst. The gall-bladder was hidden away under adherent colon and omentum. I stitched the cyst wall to the parietal peritoneum and drained it and she made a good recovery.

I am, Sirs, yours faithfully,

Bristol, Nov. 6th, 1903. CHARLES A. MORTON.

ROBERT STEPHENSON AND THE PUBLIC HEALTH.

To the Editors of THE LANCET.

SIRS,—In these days when we think as little of getting into a train for a short or long journey as we do of eating our breakfast or going to church on Sunday it is perhaps somewhat difficult to cast our minds back to the time when George Stephenson constructed and carried through the first railway for passenger and goods traffic that the world has ever known. In the surveying of "The Stockton and Darlington Railway" George Stephenson was greatly assisted by his only son Robert, to whom England owes much as a pioneer in railway enterprise, after having paid due homage to his truly illustrious father. The centenary of Robert Stephenson has recently occurred, for he was born on Oct. 16th, 1803, and in these days when centenary anniversaries are taken as fitting occasions for the recognition of lives that have been spent in the service of their country it seems unjust that a life so well spent and of such practical service not only to Great Britain but to the whole world should be passed by without comment of any description.

When we consider how dependant we are on our railways and other engineering projects, how the health of dwellers in towns is often speedily restored at perhaps a minimum of time and expense by a quick journey to the country or seaside for rest and change of air and scene, when we think also how the congested state of our towns can at any time be relieved and how at the same time the ambitious villager can satisfy his curiosity about town-life and progress by journeying from one place to another, the general public and the medical profession with it can only recall with gratitude the names of those benefactors who have helped, even indirectly, to increase the standard of health in our country

and consequently the happiness of the individual. The landmark, therefore, that draws attention to the birth of one of such men can hardly be allowed to pass by unobserved and the name of Robert Stephenson should be again revived and remembered for that ability, perseverance, and industry that have contributed so much to the increased comfort of life and thus been of such inestimable benefit to the public at large.

I am, Sirs, yours faithfully,

T. WILSON PARRY, M.A., M.B., B.C. Camb.

Highgate, N., Nov. 9th, 1903.

THE NEW REGULATIONS FOR THE INDIAN MEDICAL SERVICE.

To the Editors of THE LANCET.

SIRS,—The text of the new memorandum regarding the Indian Medical Service published in THE LANCET of Oct. 3rd, p. 973, and your special article commenting on its provisions sufficiently show that the Secretary of State and his advisers may be sincerely congratulated on the issue of the document, though much still remains to be accomplished and not a little to be explained.

The date of the memorandum is October, 1903, and although the heading of the memorandum would make it to appear that the advantages announced are prospective, yet I cannot help thinking that the wording is at fault and that these advantages are also to be retrospective and that they will apply to the officers now holding commissions. It is a wise departure from an old rule that no promotion examinations should obtain in the Indian Medical Service, that lieutenants after completing 18 months' service and before promotion to the rank of captain will be required to pass an examination in military law and in military medical organisation. I read that the result of this examination may affect an officer's promotion—this statement would have been more useful and better liked had it been accompanied by some explanation of the possibilities attached to such an examination. Is the result of this examination to carry the privilege of accelerated promotion or is failure to pass it merely to retard promotion to captain's rank? and is such retardation to be temporary only or to carry with it a permanent forfeit of position in the Army List? These are the questions which men are now asking.

Section 16, which deals with the "pay and allowances," has evidently been the subject of much earnest attention. The gains to the service which are announced are substantial, as the appended table clearly sets forth, in which I have compared the old and new rates of pay.

Rank.	Unemployed pay.		Grade pay.	Staff pay.	In officiating medical charge of a regiment.		In permanent medical charge of a regiment.	
	Old rules.	New rules.			Old rules, minimum.	New rules.	Old rules.	New rules.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Lieutenant	350	420	350	150	400	425	450	500
Captain	350	475	400	150	400	475	450	550
,, after five years' service	450	475	450	150	500	525	600	600
,, after seven years' service	450	*	500	150	500	575	600	650
,, after ten years' service	500	*	550	150	550	625	600	700
Major	640	*	650	150	—	725	800	800
,, after 15 years' service	677	*	750	150	—	825	800	900
Lieutenant-Colonel	852	*	900	350	—	1075	1000	1250
,, ,, after 25 years' service	888	*	900	400	—	1100	1000	1300
,, ,, specially selected for Increased pay	900	*	1000	400	—	1200	1100	1400

*Grade pay.

The minimum sum which a lieutenant can now receive after arrival in India is Rs. 420 a month, the equivalent, with the exchange compensation, of £357 a year; while the officer who never aspires to anything beyond the charge of a regiment and who serves for over 25 years will in future draw Rs. 1300 a month, which is equivalent to over £1100 a year. To these rates of pay every man who enters the Indian Medical Service may confidently look forward, for paragraph 9 states that "a major is promoted to lieutenant-colonel on completion of 20 years' full pay service"—there is to be no selection for that rank to which every officer, as heretofore, who serves long enough will attain. It will be noted that the "grade pay" and "staff pay" taken together are the equivalent of the pay and allowances for the permanent medical charge of a regiment. We are told that "staff pay" is the pay of a "command" and is drawn in addition to grade pay. What the word "command" will be deemed to signify is not clear but it will no doubt have a wide significance and be applicable to all military medical appointments which are not connected with the medical charge of a regiment.

There are certain circumstances other than those pointed out in your article in which the memorandum may be a disappointment to the service. You rightly comment on the absurdity of saying that men can enter the service up to the age of 28 years and at the same time informing them that the maximum pension is not open to them. As a rule the men who enter the service after 25 years of age are those who have spent additional time in study, in resident hospital posts, and in the junior teaching appointments in the schools, and such men ought to be encouraged in every way, while under the present rules they are almost debarred from the highest rate of the ordinary pension; but it is a real pity also that nothing has been done to increase the rates of temporary and permanent half-pay for those who break down in India and are really incapacited. Many of the captains in the service are married and the sum of £127 15*s*, the rate of permanent half-pay accorded to them, is very small. All of us know of cases where men have been so broken down by the Indian climate that they have been forced to retire on this pittance and in a condition where work in private practice in this country is not possible to them. The rates of half-pay are less than those offered to the officers of the Royal Army Medical Corps and they stand in need of revision.

From your comments on the conditions of civil employment it might be supposed that no improvement in the pay of the officers in civil employment has been contemplated. May I, however, point out that the pay of an officer in substantive charge of a first-class civil station has always been Rs. 50 a month more than the pay for the charge of a native regiment and that the pay for the substantive charge of a second-class civil station has always been Rs. 50 a month less than the pay of an officer in permanent charge of a regiment, so that the increase of pay on the military side of the service naturally infers an equal increase for those officers who prefer to work in civil appointments. Now that the chances of private practice are so much less than formerly the pay of a civil surgeon of the second class should be increased so as to be at least equal to that of an officer in regimental employment.

In conclusion, although there are directions in which the memorandum fails to redress obvious grievances, as you rightly indicate in your comments, the additions to pay and pension and the other privileges announced must go some way to render the Indian Medical Service as popular as it was some 20 years ago.—I am, Sirs, yours faithfully,

VETERAN.

Nov. 6th, 1903.

TAYLOR'S "PRINCIPLES AND PRACTICE OF FORENSIC MEDICINE."

To the Editors of THE LANCET.

SIRS,—I have been requested by Messrs. Churchill to edit a new edition of Taylor's large work on the "Principles and Practice of Forensic Medicine." Might I appeal through your columns to the profession to send me accounts of interesting and instructive medico-legal cases that have been recently decided? Dr. Stevenson has with the greatest generosity and kindness placed at my disposal a rich collection of poisoning cases, so that I am more particularly anxious for other criminal reports, such as rape, strangulation, &c. Might I ask that dates and references to the trial should accompany any reports sent to me at this address?

I am, Sirs, yours faithfully,

138, Harley-street, W., Nov. 9th, 1903. FRED. J. SMITH.

SOME CASES OF DILATATION OF THE BRONCHIAL TUBES AFTER MEASLES.

To the Editors of THE LANCET.

SIRS,—I beg to call attention to the following slight error which has crept into the publication of my paper in THE LANCET of Oct. 31st. The words "the lungs" on the last line of the second column on p. 1225 should have been "*the lower lobes.*" By the way, the bronchial glands shown in Fig. 2 were not caseous. The enlargement was due to acute inflammation dependent upon the presence in the lung of broncho-pneumonia.

I am, Sirs, yours faithfully,

THEODORE FISHER, M.D. Lond.

Clifton, Bristol, Nov. 9th, 1903.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

The Plague Epidemic.—Transport for Invalids.—Medical Missions in India.

A SUDDEN upward leap has occurred in the plague mortality during the past week. After remaining at about 13,000 for two or three weeks it has now risen to 16,204, chiefly due to a recrudescence in the Bombay Presidency. The following figures show the local increases: Bombay Presidency, from 8868 to 10,890; Mysore State, from 554 to 627; the Punjab, from 80 to 425; Madras Presidency, from 146 to 185; United Provinces, from 95 to 120; Bengal, from 41 to 85; and Rajputana, from 38 to 52. Slight decreases have occurred in Central India, in the Hyderabad State, Bombay city, Kashmir, and Calcutta.

The transport *Plassey* has been specially fitted to convey to England 100 helpless invalids on each trip during the ensuing trooping season and the nurses required for duty will be drawn as far as possible from those nurses to whom leave to England is being granted. The nurses will receive full Indian pay during the voyage and their leave will date from their arrival in England.

The Medical Missions in India seem to be doing a good work. There are over 76 mission hospitals and over 100 dispensaries and they are all under the care of fully qualified practitioners. The Church Missionary Society has a group of medical missions in the north-west of India, of which the Kashmir branch has been particularly successful, but the Amritsar branch seems to be almost equally popular. In the south is the London Mission Society's branch in Travancore, which attracts very large numbers and is evidently highly respected. Then there are the hospitals maintained in Bombay, the United Provinces, and in Arcot by the Presbyterians; the hospitals in the Maratha country and in Madura, kept up by the Congregationalists; and the hospitals in Assam, the Telugu country, and Burmah, looked after by the Baptists. The Germans are represented by the Basel Mission in Malabar, and there are the Australasian Baptist Mission in Eastern Bengal and the Canadian Presbyterian Mission in Central India. Even the Salvation Army has its medical mission at Nagercoil, in Travancore, under a well-qualified graduate. There is no doubt that the medical part of these missions is supplying a long-felt want amongst the masses of the poor natives in India who in illness are otherwise at the mercy of ignorant quacks or without any assistance whatever. Judging from reports many of the officers must find plenty of work in strictly following their profession. The opportunities for practice are immense and embrace all branches of our profession.

Oct. 24th.

THE ELEVENTH INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.

(FROM OUR SPECIAL SANITARY COMMISSIONER.)

THE DIVISION OF DEMOGRAPHY.

Infantile Mortality.

THE seven sections of hygiene met, as already explained, in the various committee rooms of the two Houses of Parliament. This was very convenient as at Brussels the Senate and the House of Representatives are located in the same building. But there was not room for the division of demography so it was allotted the Palace of Academies where there was ample space. But this building is on the other side of the Park and is from ten minutes to a quarter of an hour's walk from the Houses of Parliament; it was not easy, therefore, for the members of the division of hygiene to go to the division of demography so that the two were more separated than was desirable. The members of the division of demography on their side had but little time to spare, for their programme was very overloaded. They had printed reports on no less than 14 different questions though only 12 resolutions were sent from the division to the general assembly of the entire Congress. On the first question Dr. J. F. W. TATHAM, superintendent of statistics at the General Register Office, Somerset House, London, presented a report on Infantile Mortality in England which was brief and yet very complete and easy to grasp. The only difficulty in regard to this report is that in England no record is kept of stillbirths as is done on the continent. Thus, Dr. GUILLAUME, chief of the statistical bureau at Berne, was able to explain that since 1874 the law rendered obligatory the registration of all births at six months, whether still or living. By this means it had been ascertained that in Switzerland the proportion of stillbirths was equal to 4 per cent. of the total births. Dr. J. WILMART of the Brussels bureau of hygiene gave a brief account of the law on the registration of births in all the countries of Europe and statistics relating to the same. For Brussels there are statistics not only in regard to stillbirths after six months but also of miscarriages before six months. Dr. J. BERTILLON (France) thought that the deaths of infants were due to a special microbiology. Dr. KIAER (Norway) urged that infantile mortality ought to be studied separately for each class of society. Dr. PRESL (Austria) insisted that insufficient or unsuitable food was the principal cause of infantile mortality and in this he was supported by Dr. MAXWEILLER (Belgium). Dr. KERSTBERG (Berlin) alluded to the very significant statistics drawn up at Berlin, which indicated the state of the weather and temperature as the principal cause of the high infantile death-rate, and Dr. G. VON MAYR (Munich University) insisted that in Germany the infantile mortality had decreased though industrialism had increased. There were consequently other causes than the fact of the mother working in a factory or mill. M. HECTOR DENIS, vice president of the division and professor of political economy at the Brussels Free University, insisted that economic or social causes could not be separated from the physiological and the psychological causes. The problem could not be cut up into slices and it was therefore absolutely necessary to place by the side of the physical cause of death details as to the social or economic position of the parents. It was particularly necessary to state whether the mother worked and at what trade. Finally the following motion was adopted:—

Considering that the question of infantile mortality is of great importance for the well-being of the peoples and the social condition of nations; considering that statistics cannot of themselves improve the bases of the statistics on stillbirths, the Congress expresses the desire that all the Governments should revise the administrative ordinances in regard to the registration of births (including premature births and

stillbirths) so that all births should be registered together with their accessory circumstances. It would be the duty of statisticians, acting in agreement with the medical practitioners, to examine the lists of these births, so as to obtain uniform records of stillbirths and premature births.

The General Death-rates.

After thus dealing with infantile mortality the division of demography took in hand a number of reports on general mortality. Of course the main object is to obtain international uniformity in the method of recording deaths, their causes, and other essential facts. The chief difficulty, according to M. E. NICOLAÏ, who represented the Belgian Ministry of the Interior, was due to the rules in regard to professional secrecy. He thought that the receiving of death certificates should be concentrated in the hands of one authority instead of being left to local authorities.

Dr. DE MARTEAU (Belgium) did not think that such centralisation was possible nor could he approve of anonymous declarations. Professional secrecy was well in its way but it should not be placed above the interests of humanity.

Dr. BERTILLON thought that it would be very difficult to obtain a uniform nomenclature of the causes of death. A proposal to that effect was made at the Congress held in Brussels in 1853. In 1900 at the Paris Congress a new nomenclature was introduced but it was not yet universally adopted. Nevertheless it had served to show, for instance, the extreme scarcity of typhoid fever in Germany, while at the same time it demonstrated that in Spain 130 persons per 1000 of the population contracted that disease. Small-pox had caused only one single death in Germany during the last two years, though at Marseilles, Toulon, and in the large Spanish and American towns there had been many deaths from that disease. On the other hand, in Germany 22 out of every 1000 inhabitants died from measles and this was a larger proportion than in most of the other countries. The places which suffered most from all kinds of maladies were the American towns of Pittsburg and Alleghany. Ghent and Brussels suffered most from whooping-cough and Paris from diphtheria. At Havre and Rouen, where alcoholism was very prevalent, there were more deaths from tuberculosis than in any other part of France. There was but little cancer in America and in Spain; it was in Germany and the industrial towns of France that this disease was most prevalent. Dr. Bertillon explained that these comparisons had been rendered possible by the action of M. Delcassé, the Minister for Foreign Affairs of the French Republic. In 1900 M. Delcassé had brought together the representatives of 26 States and they drew up a convention requesting that a uniform nomenclature should be adopted (the Bertillon nomenclature). This was accepted by the United States of America and at their suggestion it was to be modified, if necessary, once every ten years. There were three sets of papers to be filled. The first contained the fullest details, the second was abbreviated, and the third was very short. The progress of this nomenclature had been most encouraging, for it was now applied to populations numbering in all 121,000,000 persons.

M. NICOLAÏ proposed, and the division adopted, the following motion :—

The law prescribing the verification of all deaths by a medical officer appointed for that purpose by the local authority should be effectively applied. A law to this effect should be enacted where it does not already exist. A law should be adopted compelling medical men to notify to their Government the cause of all the deaths that occur among their patients. Pending the adoption of legislative measures in this sense an anonymous declaration of all causes of death should be made and this should be done in a manner similar to that prevailing in Switzerland.

The Birth-rates.

The questions relating to birth-rates were hurried over and the division adopted the following motion :—

To give a statistical analysis of demographical figures these should be subdivided into homogeneous groups. To constitute these groups it is necessary that multifarious details should be supplied. In drawing up certificates and in the classification of statistics based on these documents relating to the civic position of individuals, it is desirable that the details of information given should be increased so as to facilitate the formation of the above-mentioned homogeneous groups. The documents could further supply the elements of two important reports; one relating to the total fecundity of marriages determined at the moment of their dissolution, the other applicable to the annual fecundity as shown by the birth of children.

Statistics on Insanity.

Though not placed so early on the agenda the division then discussed statistics in regard to the prevalence of insanity. Dr. DE BOECK (Brussels) did not think that these were satisfactorily prepared as there was no proper record of the patients who were living with their families.—Dr. A. MAHAIM (Lausanne University) thought that the Belgians were behind in their methods of the treatment of mental diseases and protested against the use of force. Naturally there were objections raised to these strictures but the division became harmonious again in the adoption of the following motion :—

The Congress expresses the desire that statistics should be periodically prepared in all countries on the insane who are confined in asylums and those who are not confined. Such statistics should be drawn up even where it is only possible to obtain the figures relating to cases that have been notified to the public authority.

Statistics on Alcoholism.

The question of alcoholism was now discussed and it naturally awakened keen public interest. Dr. MAHAIM explained that Switzerland was one of the few countries where statistics as to the mortality attributable to alcoholism really existed. If the ordinary statistics were consulted it would appear that the deaths due to alcoholism amounted to 0·54 per 1000 in France; 2·60 in England; 2·36 in Norway; 3·83 in Belgium; and 6·25 in Sweden. But these figures in nowise corresponded with the consumption of alcohol in those countries. The fact was that in many instances only those who died from delirium tremens or while manifestly drunk were entered as deaths due to alcoholism. In Switzerland deaths indirectly due to alcoholism were chronicled. The result was that alcoholism was recognised as having killed in Switzerland as many people as typhoid fever or small-pox or diphtheria, that it was the most fatal cause of death after tuberculosis and pneumonia. It was quite as dangerous as the zymotic diseases and therefore arbitrary measures to prevent its spread were quite as justifiable.

Dr. BERTILLON, however, thought that statistics ought to give facts and not opinions. If a man died from cirrhosis the death must be entered as due to this cause, though the medical attendant might be quite right in deeming this to have resulted from alcoholism. Nevertheless, it was an opinion and they must only officially register facts. Opinions at best could be put in as marginal notes.

Dr. MAHAIM agreed with this and while recognising that the information required could not be looked upon as mathematically exact thought that it would nevertheless be instructive and interesting. The motions adopted on this question were as follows :—

The Congress, recognising that heredity and alcoholism are among the most frequent causes of insanity, deems that efforts should be made to propagate actively the knowledge that marriages with alcoholic persons or hereditary neurotics frequently result in the production of insane offspring.

The Congress considers that the only means by which Governments will at last be able to acquire a really precise knowledge of the danger of alcoholism and will be led to understand the necessity of adopting energetic measures is to provoke and to organise a vast statistical referendum in which the losses due to alcoholism would be minutely analysed. The division of demography asks that the form of such statistics shall be studied at the next congress.

Trade Diseases.

The rates of mortality in the different trades or industries were then discussed. The first object evidently should be to assimilate the statistics of the different countries dealing with the mortality in various trades so that the results might be compared and the information collected be of use internationally.

M. DENIS, reporter on this question, spoke at great length. He gave a full account of what the statistics collected in England had demonstrated and urged that the same classification should be adopted in all countries. He thought that the work accomplished by Dr. Bertillon would facilitate such unification.

Dr. VON MAYR pointed out that the benefit societies rendered great help in this respect and M. CAUDERLIER (an engineer of Brussels) insisted that the economic position of the workers should be stated side by side with the vital statistics. He insisted that in England the trades where the sanitary conditions were bad had been proved to produce the highest mortality.

Poverty and Pauperism.

Special statistics in regard to poverty were next taken under consideration. On this question M. DE LANNOY, delegate of the Belgian Ministry of Justice, was inclined to accept Mr. Seebohm Rowntree's "Standard of Poverty," though it seemed more like a certificate of chemical analyses than a picture of real life. He thought that wherever relief was given, whether by public or private charities, statistics should be drawn up. It was absolutely necessary that birth-rates and death-rates should be studied in conjunction with

poverty rates. Such comparisons were much needed by the legislator. Following the example given by Mr. Rowntree a minimum standard of living should be established for each country according to the cost in each locality of the necessities of existence. Those who had not money enough to live up to this minimum could be qualified as poor. But in Belgium the much easier task of recording in a systematic manner all the cases where relief was given had not been accomplished.

Dr. KIAER remarked that the period of life when there was the least poverty had also to be noted. People were not poor all the time.

A good deal of discussion ensued as to the possibility of obtaining trustworthy statistics on the prevalence of poverty and finally the division adopted a motion stating that :—

The Congress considers that the practical utility of demographic statistics would be considerably enhanced if it were possible to establish especially the figures affecting the poor. The most perfect method of drawing up statistics of the poor is to determine *a posteriori* the number of poor by taking a census of the resources of each family in a country, a province, or a town. As this is a difficult matter in the greater number of cases a method of classification might be employed in the first instance and all inhabitants who solicit help from public or private charities might be qualified as poor. Though there is no absolute identity between those who may be correctly qualified as poor and those who have received charitable relief, the Congress nevertheless is of opinion that statistics relating to all the relief given would be extremely useful to demography.

Statistics on Suicides.

M. DENIS followed with his report on suicides. He had studied the manuscript reports at the Ministry of the Interior and the town-hall of Brussels and sought to show the social aspect of the causes of suicide. During the first six months of the year the number of suicides increased and they decreased during the last six months. But the official statistics did not keep any record of the attempts at suicide which from the sociological point of view were of equal importance. Men succeeded more frequently than women in killing themselves. They generally hanged themselves or employed firearms, while women preferred drowning. Widowhood was a very constant cause of suicide at Brussels. There was a distinct connexion between the density of population and the frequency of suicides. Economic conditions were of the greatest importance and there was always an excess of suicides at times of commercial depression.

Dr. VON MAYR insisted that suicides were more frequent in the spring which was the season of accentuated human activity. Other speakers insisted on the desire of families to conceal the facts and the consequent difficulty of obtaining trustworthy statistics.

The Crowding into the Towns.

Migrations, the depopulation of rural districts, and the increase of town populations formed the next subject discussed.

On this question M. NICOLAÏ, delegate from the Belgium Ministry of Public Instruction, presented a very lengthy report and many statistics. In dealing with such a matter a great variety of causes had to be considered. In Belgium taking the average for the years 1890 to 1900 the birth-rate amounted to 29·65 per 1000 in the agricultural communes, to 29·30 in the industrial communes, and to 28·18 in the urban communes. In Belgium therefore the question of the depopulation of rural districts had not reached an acute stage. To this it was objected that though many men still lived in rural districts they went to work in neighbouring towns.

M. PAUL MEURIOT (France) presented a report explaining that it was the population of the suburbs of the large towns that showed the greatest increase and nowhere was this more alarming than in London. The outer ring of London now consisted of 149 additional parishes, covering 368,500 acres or 1491 square kilometres. In 1861 this region had a population of 419,000, while the metropolis had a population of 2,803,000. Thus Greater London only contained 13 per cent. of the total combined population of metropolitan and Greater London. In 1881 this proportion had increased to 20 per cent. but in 1901 the outer ring had 2,044,000 inhabitants, or 31·1 per cent. of the total. Thus the increase of population in the outer ring from 1861 to 1901 was 1,626,000, or 388 per cent., while the increase in the metropolis proper was 1,733,000, or only 61·9 per cent. 40 years ago there were 281 inhabitants to the square kilometre of the outer ring and to-day the same space had 1366 inhabitants. In 1841 there were 12,738 inhabitants at West Ham and in 1901 they had increased to 267,308. The same could be said about other centres though the figures had not reached equally alarming proportions. In Paris there were 547,256 inhabitants in 1801 and outside Paris in the department of the Seine 84,052 inhabitants. In 1901 the figures had risen to 2,714,068 and 955,862 respectively. From 1881 to 1890 the increase of population in the four suburbs of St. Petersburg was equal to 18·7 per cent. It equalled during the ensuing ten years 140·6 per cent. The suburbs of Berlin only contained 6·7 per cent. of the total population in 1871 and they contained in 1900 no less than 27·9 per cent. of the total. From these and many other similar figures M. Meuriot concluded that it no longer sufficed to consider the statistics of a large town unless the neighbouring districts or suburbs were included. Finally, it was generally agreed that the whole question of the migration of population, the overcrowding of urban districts, and the depopulation of rural districts needed further study and investigation. Therefore the discussion on these questions should be resumed at the next congress.

The advantages of collecting international archives and of creating a universal library on demography were briefly considered and a motion was adopted in favour of constituting an international bibliography on hygiene and demography. With this the labours of the division were brought to a close.

Final Excursions and Remarks.

Having now concluded the summary of the discussions held in the seven sections of hygiene and in the division of demography it is only necessary to add a few words of grateful acknowledgment to those who have helped me in this somewhat arduous task. The President of the Congress, M. Emile Beco, the general secretary, Dr. Putzeys, and the secretary, Dr. Voituron, always rendered whatever assistance it was in their power to give. The courtesy of these gentlemen made my task an agreeable one throughout and I am pleased to have an opportunity of publicly tendering them my best thanks. Nor should I conclude without saying a word about the excursions in which many members of the

Dr. Putzeys, General Secretary of the Eleventh International Congress of Hygiene and Demography.

Congress participated after the Congress was over. The permanent deputation of the Provincial Council of Liège took some 200 members to visit the magnificent sanatorium which it has built at Borgoumont. Here there are 114 beds with 33 cubic metres of space for each bed, and the ventilation is so contrived that the air can be changed completely three times per hour. The sanatorium is built high up among the mountains and forests in an absolutely isolated

spot which it takes two hours to reach by carriage from Spa. In the afternoon the members of the Congress were shown the sights at Spa and entertained at a banquet by the municipality. At the lunch at Borgoumont and at the dinner at Spa many congratulatory speeches were made and the members of the Congress were well pleased with all that they had seen.

There was also an excursion to the intake of the new water-supply for the suburbs of Brussels, when 60 members of the Congress went to Sovet. The reservoirs, the galleries cut in the chalk, and the protective measures to prevent contamination of the gathering grounds were all examined. Then there was a banquet at which Dr. PARMENTIER of the *Belgian Medical Gazette* in a speech rendered special homage to Dr. Voituron, the indefatigable secretary of the Congress, who had served as a connecting-link between all concerned and had borne the brunt of the hard work. Dr. VOITURON replied that he was not alone but that the undoubted success which had been achieved was in a very large measure due to the great work done by the President, M. Beco, and the general secretary, Dr. Putzeys. These are opinions in which all who were present are likely to share. In conclusion, I think I may fully endorse the above remarks and further add that the Brussels Congress has been one of the best managed and most useful congresses of the entire series.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Visit to the Liverpool School of Tropical Medicine by the Right Hon. Joseph Chamberlain, M.P.

PRIOR to his departure from Liverpool at the close of his political engagements Mr. Chamberlain paid a visit to the School of Tropical Medicine, in which he took so deep an interest while at the head of the Colonial Office. As is well known the existence of the Liverpool School of Tropical Medicine is primarily due to Mr. Chamberlain who was desirous that something of a practical nature should be done to make the West African colonies more healthy for white men. He was ably and enthusiastically backed up by Sir Alfred Jones, K.C.M.G., who has been the chairman of the school from its inception. Mr. Chamberlain being desirous of inspecting the school put himself into communication with Sir Alfred Jones who promptly made all the necessary arrangements for the visit. At the same time Sir Alfred Jones took steps to insure that, as far as possible, Mr. Chamberlain's desire that the visit should be of a private and informal character should be carried out. The research portion of the Tropical School work is situated at the University buildings in Brownlow Hill, while the clinical ward of the school is at the Royal Southern Hospital. Both institutions were therefore included in Mr. Chamberlain's tour of inspection. Mr. Chamberlain, accompanied by Mrs. Chamberlain and the Earl of Derby, arrived at the University before noon. The visitors were received by Vice-Chancellor A. W. W. Dale, Sir Alfred Jones, Professor R. W. Boyce, Professor C. S. Sherrington, Major Ronald Ross, C.B. (head of the Tropical School), Dr. A. S. F. Grünbaum, and several members of the committee of the Tropical School. The visitors were first conducted to the new Johnston laboratories where the research work of the Tropical School is carried on. Major Ross conducted Mr. Chamberlain and party over the school, explaining all the details of the work, and the right hon. gentleman displayed the keenest interest in everything shown to him. Amongst other things, Major Ross was fortunately able to show him a new parasite of man which has just been discovered in India and was sent by the discoverer to the Liverpool School of Tropical Medicine for investigation. Mr. Chamberlain was extremely interested in the new parasite and in the specimens of mosquitoes which Major Ross was able to show him. It was explained to Mr. Chamberlain that at the present moment there are many students at the school, several of whom have come from foreign countries. About an hour was spent in inspecting the school, after which the party were driven in Lord Derby's carriage to the Royal Southern Hospital in the tropical ward of which are 12 patients, chiefly suffering from malaria. The visit to the Royal Southern Hospital also proved of much interest to Mr. Chamberlain and party.

Liverpool Royal Infirmary: Presentation to the Honorary Treasurer.

A pleasant little gathering took place in the board room of the Royal Infirmary on Nov. 4th, when the committee, the medical staff, and other friends of the institution presented the honorary treasurer (Mr. Ralph Brocklebank) with his portrait painted in oils by Mr. Hall Neale, a local artist, in recognition of his long services to the Royal Infirmary. Mr. James Lister, the President, made the presentation to Mr. Brocklebank in a felicitous speech. The picture bore the inscription: "Ralph Brocklebank, hon. treasurer of the Royal Infirmary since 1879, and chairman in 1898 and 1899. Presented by his friends and colleagues in recognition of his work and services in connexion with the hospital." Amongst the honorary medical officers present were Sir William M. Banks, Dr. A. Davidson, Dr. T. R. Glynn, Dr. R. Caton, Dr. A. Bernard, Mr. Rushton Parker, Mr. F. T. Paul, Dr. T. B. Grimsdale, Dr. T. R. Bradshaw, Dr. John H. Abram, and Mr. G. G. Hamilton.

University of Liverpool: Inaugural Ceremony at St. George's Hall.

A brilliant scene was witnessed at St. George's Hall on the afternoon of Nov. 7th on the occasion of the ceremonial inauguration of the University of Liverpool. The programme consisted of the formal presentation of the charter to the first Chancellor of the University (the Earl of Derby, K.G.) by the Lord Mayor (Mr. W. W. Rutherford, M.P.) in his capacity as chairman of the university committee, and congratulatory speeches by the mayors and deputy mayors of neighbouring towns and by Sir Oliver Lodge, the principal of the University of Birmingham, late professor of physics at University College, Liverpool. The large hall was filled to its utmost capacity with the *élite* of the city and neighbourhood and an element of hilaricus enthusiasm was provided by large bands of students who occupied the galleries. The chief participators in the ceremony, wearing their distinctive robes, formed into procession, entered the hall punctually at 3 P.M., and ascended the platform in the following order: the registrar (Dr. Londini), graduates (ladies and gentlemen), professors and lecturers of the faculties of engineering, law, medicine, science, and arts; the court and council, mayors and civic dignitaries, the vice-chancellor (Principal Dale), the pro-chancellors (Mr. E. K. Muspratt and Sir Edward Lawrence), the Lord Mayor and Sir Charles Petrie (the ex-Lord Mayor), and the Chancellor (the Earl of Derby). The scene on the platform was strikingly picturesque, full of colour and pleasing contrast. The Chancellor, who occupied the chair, was attired in his Privy Council robes and the pro-chancellors and the vice-chancellor wore their official robes for the first time, those of the pro-chancellors being of black silk, richly ornamented with silver lace, with academic caps with silver bullion tassels, and those of the vice chancellor's also of black silk, faced with crimson velvet and white fur, worn under a deep ermine cape faced with crimson velvet and fastened with white silk frogs, tassels, and silk cords. The National Anthem having been sung to the organ accompaniment of Dr. Peace (the city organist), the Lord Mayor in a brief speech of congratulation handed the charter of incorporation to Lord Derby who suitably accepted it in a graceful speech. Expressions of congratulation on the success of the application for a university charter from various civic representatives followed. Sir Oliver Lodge, the principal of Birmingham University, also offered the congratulations of that body to the authorities of the new University. The vice-chancellor (Principal Dale) having acknowledged the various congratulations the proceedings terminated.

The Prevalence of Measles in Lancashire.

In his annual report to the Lancashire county council the medical officer of health (Mr. E. Sergeant) states that one of the most fatal of infectious diseases at the present time is measles and that this malady during the year 1902 gave rise to 653 deaths. Its prevalence is much increased by attendance at elementary schools. In populous localities these schools act as centres of rapid and extensive propagation of infectious diseases among the pupils. As a precautionary measure, therefore, not only children themselves suffering from measles but also members of the invaded households should be excluded from school until danger of their communicating the disease has passed. He adds that when

means fail effectually to control the spread of measles the closure of the schools may with advantage be prescribed.

Nov. 10th.

WALES AND WESTERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENTS.)

New Hospital for Monmouth.

THE Monmouth dispensary was established so long ago as 1810 and in 1868 the institution was enlarged to accommodate nine in-patients. The inconvenient arrangement of this building and its inadequacy for the needs of the district have, however, for some time been apparent, so that it was a great relief to the managers when a few years ago Lord Llangattock very generously offered to assist in the provision of an entirely new building. An admirable site on which the old county gaol stood was secured and after the gaol was demolished a new hospital was erected, the institution being formally opened on Nov. 6th by Lord Llangattock. His lordship contributed £2000 towards the £8000 required for the building and furnishing and £1200 were given by Miss Philpott of Maida-vale, London. The hospital is in one block and with its half-timbered gables and balcony approached by a flight of steps resembles a Kentish homestead. There is accommodation for 20 patients in two six-bed wards and eight single-bed wards.

Butchers and Tuberculous Meat.

The agitation of the butchers of Glamorganshire and Monmouthshire [1] to secure from farmers and cattle dealers a guarantee that animals purchased are free from tuberculosis has at length borne fruit. Those butchers who are members of their trade associations are evidently determined to act together, and at the end of September passed a formal resolution to the effect that "on and after Monday, Nov. 2nd, 1903, no live-stock will be purchased by members of the allied association unless a warranty be given." A large stock sale was held at Llantwit Major on Nov. 2nd and the butchers inquired if any warranty would be given. As the reply was in the negative the buyers from Barry, Cardiff, Newport, and the Rhondda valleys refused to make any purchases. On the same day at a sale at Cardiff a warranty was given by the auctioneer in connexion with a scheme of insurance and at a sale held at Newport on Nov. 4th a guarantee was given by the farmers and dealers. It is stated that at both the Cardiff and Newport sales the prices realised were higher than at Llantwit Major. The principal argument used by the butchers in favour of securing a guarantee is that while they see the animal purchased for a few minutes only the farmer has opportunities of finding out its condition during many months. The farmers, on the other hand, declare that it would be impossible to put into actual practice any scheme of compensation owing to the difficulty there would be in identifying a particular carcass, to which the butchers reply that a distinguishing mark might quite easily be placed upon the hide. The most reasonable solution of the difficulty would appear to be in the adoption of some form of insurance with the premium paid jointly by the purchaser and vendor. During last year about 40 head of cattle were seized in Cardiff and about 15 in Newport and it has been estimated that a premium of 1*s.* on each beast sold would provide a sufficient insurance fund. It is satisfactory to find that the Cardiff butchers admit that the meat inspection as carried out at the public slaughter-houses is very rigid and that there is very little chance of diseased meat escaping the inspectors. It appears that it has for some years been the custom for the auctioneers to give to the butchers 1*s.* per head for cattle and 1*s.* for each pen of sheep purchased as "luck money," and the insurance scheme mentioned above as having been adopted at the Cardiff stock sale involved the retention by the auctioneer of this "luck money" on the understanding that he would himself give a guarantee with respect to the animals sold.

Refuse Disposal at Cardiff.

The question of providing a refuse destructor for Cardiff has been discussed by the corporation over and over again during the past 20 years and more than one definite recommendation has been made by the health committee. A special subcommittee recently reported at some length and advised the erection of an 8-cell destructor at an estimated cost of £15,000. The working expenses, it was considered, would amount to £2300 annually but there would be an annual saving of £500 in haulage. At present the Cardiff refuse is removed to tips on the outskirts of the town. In view of the heavy expenditure to which the corporation is already committed—noticeably in connexion with the new town hall and law courts—it has been decided to continue the present insanitary method of dealing with the town refuse. The corporation has decided to purchase two motor scavenging carts at a cost of £500 each.

Rainfall.

Although the rainfall during October was excessive in all parts of the country there was a remarkable difference between the amounts of rain which fell on the two sides of the Bristol channel. At Bristol and at Weston-super-Mare on the eastern side 7·7 and 8·3 inches were recorded respectively, while on the western side there fell at Newport 14·6 inches, at Cardiff 10·4 inches, at Swansea 11·4 inches, and at Carmarthen 15·8 inches. In the hilly districts of South Wales, as might be expected, there was a still greater increase. The rain gauge at the Cardiff collecting reservoirs in Brecon-shire recorded 21·4 inches for October and 101·3 inches for the ten months of the year; at the Swansea gathering grounds at Cray, where large reservoirs are now being constructed, 33·4 inches fell during October and no less than 182·8 inches have fallen during the present year; at the head of the Rhondda valley, which is 1700 feet above sea-level, 20·5 inches were recorded during October and 98 inches during the ten months of the year.

Vaccination Expenditure.

At the meeting of the Wellington (Somerset) board of guardians held on Nov. 5th it was reported that the cost of vaccination for the four years previous to the passing of the Vaccination Act was £210, while for the four years subsequent to the enforcement of the Act it was £636. The guardians decided to write to the Local Government Board expressing the opinion that that Board when calling for such returns as those of vaccinations, which involved so much additional work to the clerk, should pay for such extra services.—At the meeting of the Wells (Somerset) board of guardians held on Nov. 3rd it was reported that for the four years previous to the passing of the Vaccination Act the fees paid to the public vaccinator amounted to £124, while the fees for the four years subsequent to the passing of the Act were £395, an increase of £271, although fewer children were vaccinated during the latter period.—At the meeting of the Newton Abbot (Devon) board of guardians held on Nov. 4th it was reported that for the four years preceding the enforcement of the Vaccination Act the fees paid to public vaccinators amounted to £874, whilst for the four years following the passing of the Act the fees were £1202.

Nov. 10th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The New Master of the Rotunda Hospital, Dublin.

A "CHARTER" meeting of the governors and guardians of the Rotunda Lying-in Hospital was held on Nov. 8th. The seventh and final year of office of Dr. R. D. Purefoy as master of the institution having expired the following motion was passed unanimously:—

That the board of governors of the Rotunda Hospital, on the retirement of Dr. Richard Dancer Purefoy from the office of master of the hospital, sincerely tender our very best thanks to him for his devoted attention to the patients during his term of office and to the interests of the charity, and desire to assure him of our appreciation of the distinguished skill which he has shown, and we most warmly congratulate him on the great efficiency of the hospital and on the improvements in the institution which have been effected during his mastership and which he has so materially assisted to have carried out. We further desire to convey to him our best wishes for his success in his future career.

The ceremony of presentation to the hospital of a bronze bust of Dr. Purefoy by the past and present nurses of the institution took place on Nov. 3rd in connexion with the expiration of his term of office. The governors proceeded with the election of a new master, when Mr. Ernest Hastings Tweedy was declared duly elected master by a majority of votes.

[1] THE LANCET, August 8th, p. 428, and Sept. 12th, p. 793.

Mercer's Hospital, Dublin.

At the monthly meeting of the governors of Mercer's Hospital held on Nov. 3rd Dr. Seton S. Pringle was elected a visiting surgeon to the institution, vice Dr. Henry Croly.

The Typhoid Fever Problem in Belfast.

At a meeting of the City corporation held in Belfast on Nov. 2nd great dissatisfaction was expressed at the attitude of the public health committee in not discussing Dr. J. Lorrain Smith's report, but it appeared that a report presented to the public health committee by its executive sanitary officer, Mr. C. Scott, C.E., which was sent to each member of the council was to be regarded as a reply. In this report Mr. Scott considers the recommendations and remarks of Dr. Smith. In reference to the shell-fish he points out that there is no legal power to prevent the collecting or selling of shell-fish. As to milk, he says that new regulations came into force in reference to dairies, cowsheds, and milk-shops within the city on Sept. 4th, 1903. As to milk brought in from the country, he admits that there is no control, but adds that the number of cases of typhoid fever due to infected milk has been very small. In reference to pig-keeping there are, it seems, still about 2556 pigs kept in the city and Mr. Scott recommends that the distance from the pig-sty to the houses be increased from 15 to 50 feet. He recommends that all sewers should be constructed with a sufficient number of inspection chambers and ventilation shafts should be provided when the sewers are being constructed. Between January, 1899, and September, 1903, the number of houses in which the drains were reconstructed was 18,330. The average rate at which the house drains of the city are being reconstructed is about 2900 annually. Between April, 1899, and September, 1903, the drains of 11,869 houses were tested, of which 4103 were found to be defective; that is, 35 per cent. of all the drains tested were found to be defective. Further and more systematic testing of house drains should be done. Between Jan. 1st and Sept. 19th, 1903, it appears that 55,176 houses were inspected and 1463 written and 2312 verbal notices were given to the tenants to cleanse their habitations, and in this same time 6160 premises were cleansed. Finally, Mr. Scott deals in a very trenchant way with susceptibility to disease, with the wretched conditions under which the poor live, people who sleep with their windows closed, who avoid cold water as if it were a sin to use it, and who live chiefly on stewed tea and white (household) bread, the teapot rarely off the fire—tea for breakfast, for lunch, for dinner, and for supper—and, he argues, a population of this type will be liable to take every infectious disease on the whole list, especially tuberculosis and other kindred diseases, their resisting power being reduced to a minimum by foul air, filth, and unwholesome food. If the people in the towns could go back to the old-fashioned diet of porridge, milk, broth, and wholemeal bread their physique, their general health, and their disease-resisting power would be increased. Sanitary science, Mr. Scott thinks, has been too much occupied in producing so-called satisfactory statistics of births and deaths, forgetting that the true test of efficient sanitation is the production of a healthy, energetic, and disease-resisting people. A report was also received from one of the officials of the works committee pointing out the unsatisfactory state of many of the sewers of the older portions of the city. It is, in fact, perfectly clear from various sources that the drainage system of Belfast is in a deplorable condition and that in the past there has been most grave inefficiency of administration.

Ulster Medical Society.

The present session of this society was opened on Nov. 5th when the inaugural address was delivered by the President, Dr. John Campbell, surgeon to the Samaritan Hospital for Women, Belfast. Taking for his subject Some Minor Gynæcological Affections, he described at some length the various methods of treatment to be followed in cases of pruritus vulvæ, inflammations of the genital organs, lacerations of the perineum and the cervix, displacements of the uterus, pains for which there was no tangible cause, backache, and urethral caruncle. With respect to displacements he said that practically only backward displacements and descent need be considered. When the uterus was freely moveable replacement and the insertion of a pessary were the proper treatment but when there was fixation to even a slight degree the less the organ was meddled with the better. Prolapse of the uterus was not much benefited by repair of the perineum unless the repair were carried so far forward as almost to close the vagina. This was impracticable in most cases so that it was necessary to resort to pessaries or when they could not be tolerated to pneumatic pads and bandages.

The Treatment of Consumptives in Belfast.

The public health committee of the corporation of Belfast having been defeated in its scheme for providing day shelters for consumptives in one of the public walks in a walled-in garden proposes now to advertise for a ten-acre field and to erect shelters there. Mr. Robert Brown, the honorary secretary of the Ulster Branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis writes to the Belfast papers strongly objecting to such a plan, on the ground that no place can be secured except at the end of one of the tram-lines, to reach which would cost each person fourpence. What good, he says, would a piece of bread (brought by the patient from his or her home) washed down with a glass of milk, to be provided, do? On wet days few would travel to the shelters; when the weather was dry a large number would come and how would the accommodation and the amount of milk be regulated, and would the public allow coughing consumptives to ride backwards and forwards in public vehicles? He advocates the erection of a proper sanatorium and not such a scheme as the public health committee suggests, which is mere nibbling at the outside of the question. He points out what bungalows have done, all that is needed being an old country house with an administrative block and some cheap shelters. A month at such a place for each patient would teach him the value of fresh air and the importance of dealing properly with the expectoration. Such a place with 100 beds would give 1200 patients four weeks' treatment each year. This would probably be enough for Belfast if such a place as the old Royal Hospital were taken for all incurable cases, in which the infection is most virulent, both in and out of the workhouse. In Italy this fact is recognised and such cases are compelled to go to hospital, and as a consequence Italy, in spite of poverty and dirt, is freer from this disease than any country in Europe. The proposed addition of 20 beds to the Forster Green Hospital is good, as far as it goes, but is utterly inadequate. The cheapest way in the end, as pointed out by Mr. Brown, is to put forth every effort at once to crush out the fell scourge of consumption, and he thinks that 100 beds in a sanatorium, with a place to isolate incurable cases, would go far in five years to show in Belfast a distinct decline in a disease the prevalence of which is such a discredit to a modern up-to-date city.

Salaries of Union Medical Officers in Ireland.

A rather important conference was held on Oct. 31st in the board room of the Ballinasloe Union to consider the salary to be attached to the medical officership of the Filconnel district, for while the guardians propose £150 per year the Irish Medical association—backed as it is by THE LANCET and the British Medical Association—asks £200. After a long discussion Mr. Byrne, as one of the representatives of the ratepayers, proposed a motion requesting the Irish Members of Parliament to obtain the repeal or amendment of Clause 6 of the Irish Local Government Act, which precludes boards of guardians from obtaining—as formerly—half of any increase of the salaries of medical officers. The motion was carried and Mr. Byrne then proposed:—

That we, the board of guardians of the Ballinasloe Union, do ask the various boards of guardians in Ireland and the Irish Medical Association to appoint deputations to meet at the Mansion House, Dublin, for the purpose of discussing the much vexed question of the dispensary doctors' salaries, and we suggest that the Local Government Board should appoint a member of their body, or one of their inspectors, to attend the meeting. Copies of this resolution to be sent to the various boards of guardians, Members of Parliament, and the Chief Secretary. The meeting to take place on Tuesday, the 1st December. Three members of each board to be appointed on each deputation.

The motion was adopted unanimously. Mr. T. T. Collins, on behalf of the medical gentlemen, proposed a vote of thanks to the guardians for the very cordial way in which they had met them. Mr. T. J. Rossiter seconded the motion which was carried and the conference came to a close.

Irish University Education.

According to the *Irish Times*, at the meeting of the Cabinet last week Mr. Wyndham's new scheme was not passed owing to most decided opposition. Legislation for the labourers has been promised and this will, so far as

Ireland is concerned, be her share of next session's measures. The recent Land Act involves a very large expenditure of State-guaranteed money for many years to come and any attempt to saddle the Exchequer with more obligations is deemed impolitic as far as Ireland is concerned. It is also rumoured that the Government whips had evidence of the greatest opposition to rendering university education in Ireland sectarian.

Nov. 10th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Naval Surgeons and Professional Secrecy.

A CONFLICT has recently taken place between the naval surgeons and the authorities of the naval engineering works at Indret. It is part of the duties of naval surgeons to look after the wives and children of workmen in the arsenals and naval engineering works and to send in a daily report of their visits. The question arose whether it was fitting for the surgeons to indicate in their reports the nature of the illness or whether they should mention some and keep the others secret. During the absence on leave of the principal medical officer the chief of the Indret works, M. Clauzet, ordered a first-class surgeon, Dr. Averous, to specify in his reports the nature of the illnesses from which the wives and children of the workmen were suffering and if the complaint came under the heading of a professional secret he was to notify this fact on his report sheets. Dr. Averous refused, saying that there was no list of diseases coming under the head of professional secrecy. Moreover, to name certain diseases and to conceal the nature of others would identify the case. M. Clauzet did not consider these reasons sufficient and put Dr. Averous under arrest. When the principal medical officer, M. Alix, returned he was informed of the situation and quite agreed with the view taken by his colleague. Dr. Averous has appealed to the authorities (*réclama par voie hiérarchique*) against his sentence and the matter has been submitted to the Naval Minister.

Sleeping Sickness.

In my letter which appeared in THE LANCET of Oct. 31st I drew attention to the discussion at the Academy of Medicine of this remarkable disease. At the meeting of the academy held on Oct. 27th M. Blanchard reminded the meeting that he had announced that M. Brumpt had been enabled to inoculate a monkey with the parasite of sleeping sickness, which monkey died after about six weeks, having previously presented all the symptoms of sleeping sickness. Film preparations made from the blood of this monkey and stained by Nocard's method showed numbers of the trypanosoma Ugandense. The monkey in question was a macacus cynomologus, an Asiatic species which had been purchased in Antwerp and sent to the Congo. Before any experiments were made, and also after inoculation, its blood was tested for parasites and none was found up to the thirteenth day after inoculation. The parasite only appeared later. This experiment is the first in which sleeping sickness in the monkey has been verified. M. Blanchard remarked that at the previous meeting he had recalled the fact that Bruce had shown that the transmitting agent of the trypanosoma was glossina palpalis. If this were true the experiments of Bruce, which were published during the month of August, only went to confirm those previously announced by Brumpt about June 27th concerning the intervention of glossina in a parallel case. Bruce, however, had only been able to show that he had found trypanosomata of an undetermined species in the blood of a monkey which had been bitten by some 200 glossinæ collected in the neighbourhood and consequently being possibly infected with trypanosomata of unknown origin. Moreover, the monkey showed parasites in its blood as early as the fourteenth day, while in two experiments made by Bruce, in which he inoculated a monkey successfully with cerebro-spinal fluid taken from a patient suffering from sleeping sickness, the parasites did not appear in the blood until the twenty-second or twenty-third day. It is probable, then, thinks M. Blanchard, that Bruce in the experiment with the monkey and the glossinæ inoculated a parasite of rapid evolution such as that of nagana and not that of true sleeping sickness.[1]

[1] Lieutenant-Colonel D. Bruce has recently returned and has brought with him a report of his observations upon sleeping sickness, the gist of which is that sleeping sickness is tsetse fly disease in human beings.—ED. L.

Congress of School Hygiene.

The Congress of School Hygiene and of the Physiology of School Mastering (*védagogie physiologique*), which has been organised by sundry medical men and laymen for the improvement of hygiene in schools, opened at Paris on Nov. 1st in the School of Medicine. The Congress sat for two days. Papers were read and discussions were held, amongst others, on the following subjects: the Duties of Medical School Officers; the Comparative Value of Morning and Afternoon Work; the Afternoon Rest; and the Division of Hours of School Work.

Infantile Gastro-enteritis treated by Starchy Foods.

At the meeting of the Pediatric Society held on Oct. 20th M. Méry read a paper in which he advocated the use of starchy food as a transition diet in the gastro-enteritis of infants. For the arrest of gastro-enteritis which depends upon intestinal fermentation there is nothing like plain water, but this diet cannot be continued for long. A return to a milk diet is often followed by a return of the diarrhœa and the child very often becomes more and more cachectic and finally dies. M. Méry has obtained good results by giving starchy foods after stopping the plain water and before going back to milk. He uses starch water, rice water, and vegetable soup. This last, together with rice water, has given very good results, superior to those obtained with modified milk, skim milk, or butter. In infants who are more than six months old the results have been admirable; in those under that age they have not been so good. But in all cases the weight of the infants has increased, even in those who died. This feature is not due to the food value of starch but is due to retention of water by the tissues. The proportion of salt in a vegetable decoction is double that of milk and it is reasonable to suppose that an organism overcharged with salts will fix a certain quantity of water. Some children, in fact, exhibit œdema without albuminuria. This œdema disappears when they are put upon a milk diet but they also lose weight. It is easy, then, to see how a vegetable diet can successfully prevent the rapid dehydration which occurs in children suffering from gastro-enteritis.

Appendicitis in the Army.

At the meeting of the Academy of Medicine held on Nov. 3rd M. Chauvel, formerly the head of the Naval and Military Sanitary Department in Paris, read a note upon the above subject. M. Chauvel has published a former report upon this subject, but that one dealt with certain uncommon and very serious cases which showed an enormous mortality—viz., 31·8 per cent. In the present paper M. Chauvel gave a general view of military appendicitis and by official statistics which he brought with him showed that the mortality was only 14·9 per cent., a figure which compares well with those obtained in civil hospitals. One very remarkable point is the extreme rarity of appendicitis in Algeria, at least among the natives. Excess in food is very rare among them and so also is influenza. M. Chauvel's paper brought up M. Lucas Championnière to answer and in his reply he said that every day more and more confirmation was forthcoming of the idea that it was the abuse of a meat diet which was the principal cause of appendicitis. In those countries where the natives eat very little meat, as in Brittany, appendicitis is very rare. In England and the United States, where a great deal of meat is eaten, appendicitis is four times more common than in Paris. As to the rôle played by influenza there is at present an inquiry being carried out in the usual manner in Tunisia and on the coasts of Italy, where the first epidemic of influenza in 1889 was particularly severe. The object of this inquiry is to find out if in those countries which are very sparing from the point of view of a meat diet there was together with the influenza an outbreak of cases of appendicitis.

Nov. 10th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

An Italian Sanatorium.

THE ambitious scheme for providing sanatoriums for the open-air treatment of pulmonary consumption, which was drawn up by an influential committee under the presidency of Professor Baccelli shortly after the death of King Humbert three years ago, has so far gone little beyond the subscription stage, and it has been left to private effort to

establish the first institution of this kind in Italy on any large scale. The "Primo Sanatorio Italiano," which is now open to receive patients, was begun two years ago with a capital of about 500,000 lire (£20,000), raised by private enterprise on the initiative of Dr. A. Zubiana, under whose direction the building was erected and to whose care the management of the establishment has been entrusted. Situated at Sondalo in the midst of the large pine forest of Sortenna in the Valtellina and at a height of 1250 metres (4100 feet) above sea level, and favoured by the sunshine and warmth of an Italian climate and a purity of the atmosphere not inferior to that of the neighbouring Engadine, the new sanatorium enjoys great natural advantages. It is well sheltered from the winds by a background of high mountains and by the forest of larch and pinewood around it, while it commands magnificent views of the lovely valley beneath. Far from any human habitation, it is reached in about three hours by a carriage road from the station of Tirano on the Colico-Sondrio railway and is therefore within an eight hours' journey by rail and road from Milan. The sanatorium has 60 beds and all the bedrooms have a southern aspect, most of these being also provided with balconies. It is constructed and furnished in the most approved and up-to-date manner, the angles at the floor and ceiling of the bedrooms and corridors being all rounded, the walls covered with washable glazed linen or painted and varnished, and the floors laid with tiles, linoleum, or wooden parquets. There are electric light and steam heating at low pressure throughout and ventilation is secured in all the rooms by windows furnished above and below with double casements. An excellent water-supply, which is brought from sources at Escio, nearly a mile off, is distributed through all the rooms and corridors and there is abundance of hot water on every floor. There is a plunge bath for every eight rooms and a complete installation for hydrotherapy, massage, and inhalations has been provided. Annexed to the waiting-room are rooms for laryngoscopy and radiography and a chemical and a bacteriological laboratory. There is also an operating room for cases requiring operative interference. The laundry is worked by steam and is supplied with apparatus for sterilising clothing and spittoons. The verandahs, which are so placed as to command the lovely view, are large and airy and provided with chairs made to revolve. Besides a large and lofty dining hall there are six public rooms, including drawing, reading, writing, recreation, music, and ladies' drawing rooms. There are covered galleries for bad weather, while in fine weather the patients can enjoy walks of the most varied kind through the avenues and footpaths in the garden and the surrounding woods. Owing to the slope of the site on which the sanatorium is built it has been possible to provide each floor with a bridge over which patients can pass on the level in order to gain access to the grounds.

Cases of Supposed Poisoning in a Hospice.

During the first week of October there died at the Hospital of San Giovanni two children who had been conveyed thither from the Hospice of Santa Margherita, a reformatory and orphanage in Rome containing about 200 inmates. The cause of death was proved by a necropsy to be enteric fever. Two of the nursing sisters, a teacher, and several other children at the institution had sickened at about the same time, the severer cases being likewise removed to the Hospital of San Giovanni and all presenting symptoms of typhoid fever. On the 14th and two succeeding days about 20 other children at the hospice became suddenly ill but with different symptoms, there being no fever but very grave signs of gastro-intestinal irritation of an almost choleraic character. The worst of these cases were also removed to the hospital, where on the 18th two of them died after 18 hours of suffering, with vomiting, agonising pains in the abdomen, frequent bloody stools, cyanosis, and collapse. The whole hospice was meanwhile cleared out and thoroughly disinfected. In carrying this out it was found that the sanitary arrangements were very defective, the sewers for one thing never having been connected with the main sewers of the city. That there was no question of typhoid fever infection in the last group of cases was, however, conclusively proved by the necropsy of the two fatal cases which showed that death was due in each of them to poisoning from the ingestion of some powerful irritant. There were acute and diffused peritonitis, large necrotic erosions of the stomach, acute enteritis, and acute nephritis—such lesions, in short, as might have been caused by a strong caustic such as corrosive sublimate. An analysis of the viscera and their contents is being made; meanwhile it is believed that through some lamentable blunder on the part of the attendants powders containing perchloride, in place of subchloride, of mercury must have been administered to the children as a purgative. A third death with similar symptoms and post-mortem appearances has since taken place and one more at least of the unfortunate little patients will probably succumb before the toll of victims is complete.

Proposed International Congress on Malaria at Rome.

The following motion was proposed by Professor Queirolo of Pisa at the Congress of Internal Medicine, lately held at Padua, and carried by acclamation:—

Considering that Italy, chiefly through the merit of the Roman school which has promoted and cultivated with such zeal and signal success the study of malaria, holds the first place in respect of these researches; also in view of the fact that the victories achieved by science in this field have led to important practical results in regard to the prophylaxis of malaria, this Congress resolves to give its support to the promotion of an international congress for the study of malaria to be held in Rome.

Nov. 5th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

The Cancroin of Professor Adamkiewicz.

SOME years ago Professor Albert Adamkiewicz of Cracow in Austrian Poland read a paper in Vienna announcing the discovery of a remedy against carcinoma. This remedy, to which he gave the name of cancroin, was a solution of choline, citric acid, and phenol. The most eminent physicians and surgeons, however, such as Billroth, Albert, and Kaposi, agreed that this method of treatment had nothing to recommend it and Professor Adamkiewicz has therefore sought some other way of inducing the profession to make use of cancroin. In the middle of October the chief surgeons of the public hospitals belonging to the State were surprised by receiving an order from the Home Secretary to make trials of the cancroin of Professor Adamkiewicz. This remarkable and unprecedented order has naturally aroused much indignation in medical circles. Professor Adamkiewicz also called the newspapers to his aid, publishing most encouraging results of the treatment of cancer by means of cancroin, but Dr. Husche of Rostock has stated that one of the patients whom Professor Adamkiewicz and Dr. Katscher claimed to have cured really died from cancer of the stomach a short time after treatment with cancroin.

"Grande Crise Gastrique."

A paper on this subject has been read by Professor Pal before the Vienna Gesellschaft der Aerzte. He found that there was a very great increase of vascular tension during the gastric crisis, often to the extent of 150 per cent. of the tension under normal conditions in the same patient, but this increased tension was by no means produced through pain, as some investigators have supposed, because very violent attacks of pain, according to Professor Pal, produce only depression of the blood pressure. Professor Pal found that the blood pressure increased before the pain began and that the vascular tension, in fact, caused the pain. The high vascular tension disappeared at the same moment as the pain did. Through artificial depression of the vascular tension it was possible to control the pain and all the other symptoms of the "crise gastrique." If the depression of the vascular tension comes to an end the pains are renewed. The effect of morphia presents points of interest, for morphia only soothes the pain through blunting the sensibility and the peculiar symptoms of the crisis may remain. Professor Pal explains the "grande crise gastrique" as being a vascular phenomenon, a peculiar contraction of the smallest vessels of the intestines. All conditions found during the crisis were directly or indirectly produced by this fundamental phenomenon—namely, the irritation of the vaso-constrictor branches of the splanchnic nerves. In the discussion Professor Winternitz remarked that very often the attacks of pain in tabes dorsalis were not associated with an increase of blood pressure, but, on the contrary, with depression of it. Professor Winternitz had also seen some cases of gastric crisis with high tension of the blood-vessels, but in another case it was possible to observe in the normal state high blood pressure and during the attack of "crise gastrique" a very low one.

Reflex Palsy of the Extremities and Reflex Impairment of the Power of Writing and Speaking.

A paper on this subject has been read by Professor Urbantschitsch before the Gesellschaft der Aerzte. He said

that in cases of otitis media palsy of the extremities occurred sometimes, but medical men did not recognise a connexion between this symptom and otitis media, although it was not difficult to show that the treatment of otitis when successful was followed also by a diminution of the palsy. Impairment of the power of writing was often produced by otitis media, by pressure on the mucosa of the middle ear, and by syringing the ears. The introducing of tampons into the ear might in about one-fifth of the cases act similarly. The same causes produced reflex paresis of the muscles of vocalisation with consequent impairment of speech. Many patients who were suffering from ear disease spoke with difficulty and only in a slow hesitating manner; some letters, especially "s," they were quite unable to pronounce. Often they were unable to read fluently. Professor Urbantschitsch had observed patients suffering from ear disease and presenting symptoms similar to apoplexy in whom the treatment of the ear complaint showed the reflex nature of this paresis beyond a doubt. Similar symptoms of paresis were also produced by irritation of the sensory nerves of the mucous membranes of the nose and mouth, but after cocainisation of the mucous membranes of the ear, nose, and mouth it was impossible to elicit the same effect, a sign of the reflex nature of this peculiar disease. It seemed to be necessary to examine the ear and nose in all cases of paresis of the extremities and impairment of the power of speaking and writing.

Experiments on Living Animals.

The anti Semitic Landtag (Diet) of Lower Austria has prohibited vivisection and all experiments on animals in the hospitals under its control. As the obstetrical clinics of Vienna University receive financial support from the Landtag and are under its control this assembly has ordered all experiments of every kind on animals to be stopped. The professors of obstetrics protested against this order but as yet without any results. The same Landtag sanctioned a grant to the university polyclinic only under the condition that Jewish professors should be subject to the authority of Christian professors in their treatment and prescriptions.

Nov. 9th.

NEW YORK.

(FROM OUR OWN CORRESPONDENTS.)

The Sale of Headache Remedies in New York.

THE facility with which persons can obtain powerful and dangerous drugs in the druggists' shops of New York city has been recently engaging the attention of writers on medical matters. This is especially the case with regard to headache remedies. These are sold in enormous quantities to individuals who are entirely ignorant either of the action of the powerful drugs therein contained or of the cause of the pain from which they desire to obtain relief. The druggist assures the sufferers that certain powders, wafers, or tablets will have the desired effect and, indeed, in a very large number of instances temporary relief is quickly obtained. The druggist will also declare that the remedy advocated is harmless. The majority of these remedies are mainly composed of acetanilide, phenacetin, antipyrin, or of some other of the coal-tar derivatives and are consequently, when not absolutely dangerous, in a high degree depressing. The medical journals of New York have been warning the public for some time against the indiscriminate use of the drugs known as headache remedies.

Dowie in New York.

The descent upon New York of Dowie and his restoration host from Zion City has been made the theme of discussion by some of the medical journals and by all the lay journals. The *New York Medical News* treats the question from a psychological standpoint and seems to maintain that the so-called Dr. Dowie is more or less insane. The writer of the article is of the opinion that he is the victim of a conviction of reincarnation such as is so common among the insane that every asylum in the country has some examples of it. "Further," the writer says, "with this fixed idea become a ruling passion there is combined a capacity for business and the administration of affairs, a positive genius for organisation, and withal a persuasiveness of language and a magnetism of personality that make the possessor of these heterogeneous qualities a most interesting subject for study and painstaking investigation." The majority of the journals take a far more material view of the matter and insist that Dowie is simply a clever fakir who, knowing human nature, plays upon the weaknesses of mankind in order to make money and at the same time to gratify his vanity. Whether Dowie, Mrs. Eddy, and others of the same kind are influenced by good motives or not one thing at least is certain, that they cause a great deal of harm and for this reason alone should be suppressed. To the ordinary observer it would seem that they fleece their followers and those of the outside public who allow themselves to be deluded in order to live in luxury invested with a notoriety which they are persuaded is fame. Perhaps the most unpleasant feature of Dowie's miscalled religious tenets is his professed belief in faith cure. If grown-up persons refuse to be treated by a medical man when injured or when attacked by disease no valid objection can be made to their action, but when a parent or guardian will not allow a sick child to be treated by a qualified physician or surgeon then it is perfectly right that such an individual should be severely punished. Even in the United States, where every latitude is allowed to the irregular fraternity, this view of the case is beginning to impress itself upon the minds of the community at large.

Yellow Fever Quarantine in Texas and Louisiana.

It was announced on Oct. 23rd that the Governor of Texas had quarantined the whole of that State against San Antonio where yellow fever is prevalent. Railroads are forbidden to operate trains in or out of San Antonio or to handle any freight or passenger business from that city until the quarantine is removed. On Oct. 23rd the Louisiana State Board of Health issued a proclamation of quarantine against Laredo and San Antonio, Texas, and in addition to this all railroads and other common carriers were prohibited under penalty from bringing into Louisiana passengers, household goods, and cars from those places unless they were first fumigated with sulphur by authorised health authorities. The situation as regards yellow fever is declared to be encouraging at San Antonio and much indignation has been expressed at the action of the Governor of Texas in proclaiming a State quarantine against that town, while no such step has been taken with regard to Laredo where the disease is said to be more widespread.

Nov. 3rd.

Obituary.

PHILIP BROOKES MASON, M.R.C.S. ENG., L.S.A.,

CONSULTING SURGEON TO THE BURTON-ON-TRENT INFIRMARY.

THE profession is the poorer by the death of Philip Brookes Mason, a man of sterling qualities and excellen intellectual gifts, as the following record of his academical career will show. Mason commenced his medical education in 1858 by spending a winter and a summer session in Glasgow, where he gained prizes in the classes of anatomy, chemistry, and botany. After that he spent a year in his father's surgery at Burton-on-Trent and then entered at University College, London, where he gained seven gold and silver medals as well as the Filliter exhibition of £30 in pathological anatomy, the Longridge exhibition of £40 for general proficiency in medicine and surgery, and the Atkinson-Morley scholarship of £45 a year for three years in surgery. In 1864 he became a Member of the Royal College of Surgeons of England and a Licentiate of the Society of Apothecaries. He was house surgeon in the hospital to Mr. Erichsen and Sir Henry Thompson. In 1864 he was appointed demonstrator of anatomy in University College and held that appointment for three years, and in this position, in the temporary absence of Professor G. V. Ellis, delivered the lectures in the class of anatomy. In the University of London he obtained at the preliminary examination (scientific) exhibitions of £40 a year for two years in biology and also in chemistry and materia medica. In 1866, when he was intending to present himself for the second M.B. examination in the University of London and the final examination for the Fellowship of the Royal College of Surgeons of England, cholera broke out in London and he was appointed by Dr. George Buchanan, whose work as assistant physician at the Hospital for Sick Children in Great Ormond-street he had been doing during that summer, to the charge of the temporary Hospital for

Children for the parishes of St. Giles and Bloomsbury. Early in 1867 his father died suddenly, leaving his family unprovided for, and he was obliged to take over his practice, and the duties of a very large country practice effectually put a stop to his passing any more examinations and thus it was that he never held the higher degrees. From 1870 he was surgeon to the Burton-on-Trent Infirmary, which now contains 60 beds and serves a large manufacturing, railway, and colliery district, and this afforded him considerable practice both in general and in operative surgery. He was the first surgeon in the neighbourhood to perform ovariotomy and that successfully. He was also surgeon to the Burton-on-Trent Dispensary and to the Post Office.

With regard to his private life a friend writes: "He never took any part in municipal politics. I believe he never voted in a municipal election of any kind and never more than once, I believe, in a Parliamentary one. He was elected a member of the Burton Feoffees for the administration of the combined charities in 1882 and was chairman of that body in 1898. In 1888 he was made a magistrate of the borough of Burton-on-Trent, being one of the gentlemen appointed when the borough bench was first formed in that year. He continued to sit on the bench up to 1899. He was from its foundation a member of the Burton-on-Trent Archæological and Natural History Society and was at one time president. He read several important papers before the society."

Mr. Mason was a great naturalist and made many communications to the Linnæan and cognate societies. He was a born collector and once said that he began collecting at the age of four years. No natural curiosity came amiss, but it was to insects, and especially beetles, that he was mainly devoted. His specimens were mounted (by himself) with the greatest neatness and skill and some years ago had assumed such proportions as to lead him to build a fireproof museum adjoining his house, and here it was that he spent almost every moment of his leisure. This collection is a wonderful one to have been brought together by one man. The specimens in it must amount to many thousands and their arrangement is most skilful. He had probably the largest collection extant of British beetles, but of the scientific value of the collection it must be left to entomologists to speak. Mr. Mason married rather late in life Miss Saunders, the daughter of Mr. William Saunders, a Burton brewer. This lady proved a most suitable helpmate and during his somewhat prolonged illness nursed him with the most unremitting and tender care. But for his father's sudden death Mr. Mason must have taken a high position in the scientific and medical world and would doubtless have joined the teaching staff of a medical school. His death will be greatly lamented by University College men whose memories take them back to the "sixties." Among his fellow students were Sir John Williams, Sir R. Douglas Powell, Matthew Berkeley Hill, H. C. Bastian, Sir W. R. Gowers, Marcus Beck, G. V. Poore, F. T. Roberts, John Tweedy, and others who have become known to the profession.

He died on Nov. 6th and was buried at Burton on the 9th, a large number of sorrowing friends being present at the funeral. He left no issue.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Friedrich Betz of Heilbronn, at the age of 84 years. In early life he was a prolific writer on medical subjects and was the first editor of *Memorabilien*.—Dr. Fochier, professor of midwifery in Lyons.—Dr. A. Gallet, professor *agrégé* of surgery in the University of Brussels and surgeon to the St. Jean Hospital in that city.—Dr. Brassac, formerly director of the Medical Department of the French Army.

MEDICAL MEN AND THE MUNICIPAL ELECTIONS.—At the meeting of the Monmouthshire County Council held on Nov. 4th Mr. John Davies James, M.R.C.S. Eng., L.S.A., was elected an alderman.—At Newport (Mon.) municipal election Mr. Sutton, L.R.C.P., L.R.C.S. Edin., was returned for the St. Woolos Ward.—At Bristol on Nov. 2nd Mr. Colston Wintle, L.R.C.P. Lond., M.R.C.S. Eng., was returned for the Hortield Ward by a very large majority.—Dr. Henry Dutch has been returned councillor for the Grosvenor Ward, City of Westminster Council.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen have passed the Second Examination of the Board in Anatomy and Physiology:—

Charles Ernest Anderson, King's College Hospital; Bernard Richardson Billings, London Hospital; Patrick Black, B.A. Camb., Cambridge University; John Butterworth, L.D.S. Eng., Owens College, Manchester; Samuel Earle Catheart, Middlesex Hospital; Walter Horsfall Chesters, University College, Cardiff; Samuel Wilfrid Daw, Guy's Hospital; John McDougall Eckstein, St. Bartholomew's Hospital; Harry Rumsey Edwards, King's College Hospital; Albert Edward Evans, University College Hospital; Shiavax Hormuzshaw Gandhi, Bombay and Owens College, Manchester; Percy Charles Garrett, Owens College, Manchester; Frederic William Wandby Griffin, B.A. Camb., and Richard Athelstane Parker Hill, B.A. Camb., Cambridge and St. Bartholomew's Hospital; Elliott Thornton Glenny, Rupert Lawrence Haines, and William John Jago, St. Bartholomew's Hospital; Roderick Jackson, University College, Liverpool; Robert Bruce Low, University College Hospital; Peter Donald Fraser Magowan, Guy's Hospital; Joseph Leopold Meynell, London Hospital; Percy Moxey, University College, Bristol; Harry Williams Nicholls and Sidney John Rowneree, Middlesex Hospital; Alexander Morton Pollard, King's College Hospital; John Pugh, St. Mary's Hospital; George Andrew Russell, Birmingham University; Harold Kenneth Salisbury, University College, Bristol; Ernest Albert Saunders, King's College Hospital; Edgar Arthur Shirvell, London Hospital; George Alan Simmons, St. Thomas's Hospital; Herbert McLean Staley, Owens College, Manchester; John Tate and Arthur Christopher Watkin, University College Hospital; Christopher Tylor, B.A. Camb., Henry Cecil Waldo, Ambrose Cyril Wilson, and William Harrison Woodburn, B.A. Camb., St. Bartholomew's Hospital; and Ismael Valerio and Ernest Wragg, B.A. Camb., Guy's Hospital.

UNIVERSITY OF OXFORD.—The following dates are announced for the medical and preliminary examinations (in each case the date mentioned is that on which the examination begins):—Preliminary examinations in Physics and Chemistry, Dec. 7th, and in Botany, Dec. 14th; further examination in Mathematics, Dec. 14th (names to be sent in by Dec. 2nd); First M.B. examination (Anatomy, Physiology, Materia Medica, and Organic Chemistry), Dec. 9th (names to be sent in by Nov. 25th); Second M.B. examination, Dec. 9th (names to be sent in by Nov. 25th); Preventive Medicine, Nov. 24th. The examination in Pathology in the second M.B. may be taken separately at any time after passing the first M.B. examination and before the remainder of the second M.B. examination. Forms of entry, certificate forms, &c., can be had on application to the secretary to the Boards of Faculties, Clarendon Building, Oxford. Names entered late are admitted up to certain dates, which vary for the different examinations, on payment of an additional fee of two guineas. Degree days for this term are on Nov. 19th, Dec. 10th, and Dec. 17th.

LEEDS HOSPITAL FOR WOMEN AND CHILDREN.—The jubilee year of this hospital has been opportunely celebrated by the formal opening of an entirely new group of hospital buildings. The old building, which was not originally constructed for a hospital, will for the present be adapted as a residence for nurses and servants. The opening ceremony was performed by the Right Honourable the Viscountess Mountgarret on Oct. 30th. The new buildings will accommodate about 45 gynæcological patients and a few cots are provided in a separate ward for children. In addition to these an isolated portion of the building has been specially arranged as a small lying-in hospital with space for five beds. This it is hoped will be the nucleus of a larger lying-in hospital when sufficient funds are forthcoming. Hitherto there has been no lying-in hospital in Leeds. The wards for the reception of gynæcological patients occupy a long two-storyed pavilion. The space under the ground floor is, owing to the fall of the ground, very extensive, and having been left unoccupied it allows of a free circulation of air beneath the entire pavilion. The wards are 100 feet long, 24 feet wide, and 13 feet high. Each bed has a linear space of 10 feet, a floor space of 120 square feet, and a cubic air space of 1560 cubic feet. All the windows are double, in order to counteract the cooling effect of the extensive window surface.

CENTRAL MIDWIVES BOARD.—At the last meeting of the Central Midwives Board a letter was read informing the board that a person representing himself as deputed by the county councils to receive the names and fees of midwives desiring to be certificated by the Central

Midwives Board had visited a nursing institution and had endeavoured to collect the fees. The board consequently desires it to be known that the secretary alone is authorised to receive the fees and as it is in possession of a description of the impostor it trusts that the publicity of the press may lead to his early detection. At the same meeting the secretary was instructed to add the Rural Midwives Association, 47, Victoria-street, London, S.W., to the list of bodies to whom applicants for training in midwifery should be referred, while the board resolved to receive the certificates of the following bodies as approved qualifications under Section 2 of the Midwives Act, 1902: (1) Queen Charlotte's Lying-in Hospital, (2) Manchester Southern and Maternity Hospital, (3) Liverpool Ladies' Charity and Lying-in Hospital, (4) British Lying-in Hospital, (5) Glasgow Maternity Hospital, and (6) St. Mary's Hospital, Manchester. The names of 126 women were passed under Section 2 of the Act and ordered for entry on the roll. Of this total 74 claimed as holding the certificate of the Obstetrical Society of London, three that of the Rotunda Hospital, Dublin, and 49 were admitted as having been in *bonâ fide* practice for one year prior to July 31st, 1902.

UNIVERSITY OF CAMBRIDGE.—As was expected in the University the electors to the chair of Physiology have appointed Dr. J. N. Langley, F.R.S., to be professor in succession to Sir M. Foster, K.C.B. The general board of studies has appointed Dr. A. Hill to be University Lecturer in Advanced Anatomy, and Dr. A. C. Ingle to be University Lecturer in Midwifery. The Allen scholarship, value £250 for one year, for research in medicine or other branch of science, is about to be vacant. Graduates of the University under the age of 28 years may apply to the Vice-Chancellor before Feb. 1st, 1904, stating the nature of the investigation they desire to pursue. During the present year 88 candidates have been admitted to the examination in State medicine for the Diploma in Public Health. 41 passed both parts of the examination. The council of the Senate proposes that a syndicate shall be appointed "to consider what changes, if any, are desirable in the studies, teaching, and examinations of the University," to confer with such persons or bodies as it may think fit, and to report before the end of the Easter term, 1904. The scientific members of the syndicate as proposed are Dr. D. MacAlister; Dr. A. R. Forsyth, F.R.S.; Professor J. J. Thomson, F.R.S.; and Mr. W. Bateson, F.R.S.

THE FINANCIAL POSITION OF GUY'S HOSPITAL.—At the annual general court of the governors of this hospital held on Nov. 6th Mr. H. Cosmo Bonsor, the treasurer, took the chair and made a statement with respect to the financial condition of the hospital. He said that all the wards are now opened and more than 600 beds available for patients and that the cost of maintenance could not be less than £60,000 per annum. Towards this the hospital had an income more or less assured of about £35,000 per annum and in addition had recently been in receipt of about £11,000 annually from King Edward's Hospital Fund for London, the Hospital Saturday and Sunday Funds, subscribers and other sources, leaving a deficiency in ordinary income of about £14,000 per annum. The treasurer further reported that of the £180,000 appealed for in 1901 for renovation and building only £103,000 had been so far received and that the institution was in debt for the balance which had been made up by temporary loans. It was unanimously resolved that, "The treasurer be requested to obtain the widest currency possible for a short statement of the present circumstances of the charity, and, further, to continue a vigorous appeal with a view of enlarging the basis of public support adequately to the increased needs of the establishment." Guy's Hospital has been rightly held up as an example to be followed by other metropolitan hospitals for its admirable internal arrangements and good and economical working and we feel very strongly that the charity ought to be relieved from the financial strain indicated by an annual deficit of £14,000. A hospital cannot, any more than a private individual, for ever live on its capital. That Guy's Hospital is appreciated by the great British public has been proved by its position and by the number of beds constantly occupied. To treat effectually 130,000 patients every year is no small task and a hospital which can carry on such a work with good results and economy deserves—nay, has the right to claim—support from the public. Certainly Guy's Hospital has received some large special donations and legacies but the pressing needs of the hour have exhausted such sources of income as fast as they occurred. We trust that the public will come to the rescue.

A FEMALE VACCINATION OFFICER.—At the meeting of the Chipping Sodbury (Gloucestershire) board of guardians held on Nov. 4th a lady was appointed vaccination officer.

HARVEST FESTIVAL.—An interesting harvest festival was held in the chapel of the Cancer Hospital, Fulham-road, London, S.W., on Nov. 5th, at 7 P.M., when a touching and appropriate sermon was preached by the Archdeacon of London. The chapel was very prettily decorated, the work having been carried out by some lady friends of the hospital assisted by the matron and her sisters and nurses.

GLASGOW OPHTHALMIC INSTITUTION: POST-GRADUATE DEMONSTRATIONS ON DISEASES AND INJURIES OF THE EYE.—The seventh annual course of demonstrations was inaugurated on Nov. 3rd, Dr. R. Perry, one of the managers of the Glasgow Royal Infirmary, presiding. Dr. A. Maitland Ramsay chose as his subject "A Blow on the Eye: its Immediate and Remote Results." The attendance was larger than on any previous occasion.

UNIVERSITY COLLEGE, BRISTOL: FACULTY OF MEDICINE.—At University College, Bristol, on Oct. 30th, Sir W. Ramsay presented the following prizes and certificates to the successful candidates. Winter Session—Medicine: prize, S. C. Hayman. Surgery: S. C. Hayman. Public health: prize, J. D. Calcott; certificate, L. Shingleton Smith. Senior anatomy: prize, J. W. Willcox; certificates, A. J. Wright, V. Green-Armytage, R. E. Thomas, G. S. Parkinson, and J. F. Blackett. Junior anatomy: certificates, J. M. Hammond and P. S. Tomlinson. Physiology, Part I.: prize, J. W. Willcox; certificates, L. J. Short and R. B. M. Hopkins; Part II.: prize, R. B. M. Hopkins; certificates, J. W. Willcox, J. F. Blackett, L. J. Short, F. T. Boucher, V. Green-Armytage, and E. S. Goss; Part III.: prize, H. S. Rivington; certificates, J. M. Hammond, L. J. Short, P. S. Tomlinson, C. H. Taylor, R. N. W. Biddulph, and E. V. Connellan. Biology: prize, P. S. Tomlinson; certificates, W. T. Clarke, W. W. Morrison, A. H. Dawes, and P. Sinnnock. Chemistry: prize, W. T. Clarke; certificate, P. S. Tomlinson. Summer Session—Pathology: prize, J. D. Calcott; certificates, A. W. Richardson and S. C. Hayman. Medical jurisprudence: prize, A. W. C. Richardson; certificates, J. D. Calcott and S. C. Hayman. Operative surgery: prize, S. C. Hayman; certificate, L. N. Morris. Midwifery: prize, W. J. H. Pinniger; certificates, F. Shingleton Smith, L. Shingleton Smith, and L. N. Morris. Practical medicine, Surgery, and Midwifery: prize, L. N. Morris; certificates, F. Shingleton Smith, A. N. Thomas, W. J. Pinniger, and F. G. Bergin. Anatomy: prize, P. S. Tomlinson; certificate, J. M. Hammond. Practical chemistry: prize, P. S. Tomlinson; certificate, W. Morrison. Pharmacology and Therapeutics: prize, J. W. Willcox. Materia medica: prize, E. Davies; certificates, R. J. Parnell and S. H. Kingston.

SOCIETY OF APOTHECARIES OF LONDON.—The Lord Mayor's Day dinner of the Society of Apothecaries was held at the Society's hall in Blackfriars, London, on Nov. 10th, the Master of the Society, Mr. Clarence Cooper, being in the chair, supported by the wardens, Mr. Albert B. Day and Mr. J. H. Jeffcoat. Covers were laid for about 100 persons and amongst the guests were Sir W. S. Church, President of the Royal College of Physicians of London, Mr. J. Tweedy, President of the Royal College of Surgeons of England, Mr. A. Gibbs, M.P., Sir Joseph Fayrer, Professor A. Macfadyen, Sir Hugh Beevor, Sir William Wilson, Sir Trevor Lawrence, Dr. F. T. Roberts, Mr. S. R. Atkins, President of the Pharmaceutical Society, Mr. S. F. Cowell, Mr. Shirley F. Murphy, Dr. Dawson Williams, Mr. W. Arbuthnot Lane, Mr. W. A. Frost, Dr. A. H. N. Lewers, Mr. Andrew Clark, Mr. G. H. Makins, and Dr. F. de Havilland Hall. Mr. Cooper, in proposing the toast of "The King," referred to the warm interest taken by His Majesty in medical work and pointed out how it encouraged advancement in scientific research. In proposing the toast of "The Visitors" Mr. Day extended a warm welcome to the President of the Royal College of Physicians of London, the President of the Royal College of Surgeons of England, and the other guests. This toast

was responded to by the Presidents of the Royal Colleges. Sir William S. Church said that there was a close connexion between the Society of Apothecaries and St. Bartholomew's Hospital and for more than two centuries there had been at St. Bartholomew's a resident apothecary, the last being Mr. Frederic Wheeler, to whom he (Sir William Church) had been apprenticed. Mr. Tweedy said that all must respect the useful work done by that Society in the interests of the medical profession. To Mr. Tweedy was also entrusted the office of proposing the toast of "The Society of Apothecaries of London." He said that before the earliest association of Barber Surgeons in London a Society of Apothecaries existed with records reaching back to the Crusades, when the Apothecaries were an active and energetic body. During the terrible plague of London the Apothecaries were about the only persons who remained in the City to attend the sick and the dying. The Society of Apothecaries had fulfilled a very important function in promoting medical education and licensing practitioners. In his opinion the medical student was in danger of being over-educated and he would rejoice to see that Society take a larger share in the future in medical education and qualification. The subject was an economical one as well as educational because the increasing cost of medical education had reached such a degree that a man had to consider whether it was worth while paying for the costly and elaborate training required for the University of London with no further recompense at the end than such as was to be gained in remote country districts. Mr. Cooper, in acknowledging the toast, explained the lines on which the Society had lately been affording opportunities for the progress of medical science.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

BAILEY, ROBERT COZENS, M.S. Lond., F.R.C.S., has been appointed Assistant Surgeon to St. Bartholomew's Hospital.

BENT, SIDNEY C. H., M.D. Brux., M.R.C.S., L.R.C.P. Lond., has been appointed Senior House Surgeon to the Evelina Hospital for Sick Children.

BOOTH CLARKSON, Captain J., L.R.C.P. Lond., L.R.C.S., Reserve of Officers, District Surgeon and Health Officer for Alexandra County, has been appointed a Justice of the Peace for Alexandra County, Natal.

DUNCAN, W. HENRY, L.R.C.P. & L.R.C.S. Edin., has been appointed House Surgeon to Nottingham Children's Hospital.

GREENWOOD, ALFRED, M.D. Viet., D.P.H., Medical Officer of Health of Blackburn, has been appointed Medical Officer to the Blackburn Education Authority.

HEPBURN, DAVID, Professor, M.D., C.M. Edin., M.R.C.S., F.R.S. Edin., has been appointed Dean of the Faculty of Medicine of the University College, Cardiff.

ORANGE, MARGARET, L.S.A. Lond., M.D. Brux., has been appointed Lecturer on First Aid and Home Nursing, London School Board, and Clinical Assistant to the Evelina Hospital for Children.

PARSONS, E. D., L.R.C.P. Lond., M.R.C.S., has been appointed House Physician to the Evelina Hospital for Sick Children.

SAMUEL, HENRY T., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant House Physician to the Cardiff Infirmary.

SIMON, DAVID AP, M.B., B.S. Glasg., has been appointed Certifying Surgeon under the Factory Act for Nantgaredig District of the County of Carmarthen.

STUART-LOW, WILLIAM, F.R.C.S. Eng., has been appointed Assistant Surgeon to the Central Throat and Ear Hospital, Gray's Inn-road.

SMITH, D., M.B., M.S. Glasg., has been appointed Certifying Surgeon under the Factory Act for the Creetown District of the County of Kirkcudbright.

TIMMS, A. E., L.R.C.P., L.R.C.S. Edin., has been appointed Assistant House Surgeon at the Cardiff Infirmary.

WHEELER, E. R., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant House Surgeon to the Evelina Hospital for Sick Children.

WHITELOCKE, R. H. ANGLIN, M.D., M.Ch. Edin., F.R.C.S. Eng., has been appointed Lichfield Lecturer on Clinical Surgery in the University of Oxford.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

ARMY MEDICAL SERVICE.—Examination of Candidates for not less than 50 Commissions in the Royal Army Medical Corps.

BETHLEM HOSPITAL.—Two Resident House Physicians (unmarried), for six months. Honorarium at rate of £25 each per quarter, with board, &c.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Two Acting Physicians.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES, John Bright-street, Birmingham.—Surgical Assistant for six months. Honorarium at rate of 52 guineas per annum.

BRIGHTON, HOVE, AND SUSSEX THROAT AND EAR HOSPITAL, Church street, Queen's-road, Brighton.—Non-resident House Surgeon for six months, renewable. Salary at rate of £75 per annum.

CAMBERWELL PROVIDENT DISPENSARY.—Vacancy on Medical Staff.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—House Physician for six months. Honorarium of £25, with board, residence, &c.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Surgeon to Out-patients. Also Pathologist. Salary 100 guineas per annum.

HEREFORD COUNTY AND CITY ASYLUM.—Senior Assistant Medical Officer, unmarried. Salary £150 per annum, with board, lodging, and washing.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—House Physician, unmarried, for six months. Salary £20, with board and residence. Also Clinical Pathologist and Bacteriologist, non-resident. Honorarium 50 guineas per annum.

LIVERPOOL STANLEY HOSPITAL.—Senior House Surgeon. Salary £100 per annum, with board, residence, and washing.

LONDON LOCK HOSPITAL.—House Surgeon to the Female Hospital. Salary £80 per annum, with board, lodging, and washing.

MARGARET-STREET HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, Margaret-street, Cavendish-square, W.—Pathologist.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary £160, rising to £180.

NEW HOSPITAL FOR WOMEN, Euston-road, N.W.—Clinical Assistant (female) in Out-patient Department.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Resident Medical Officer, also Assistant Resident Medical Officer, each for six months. Salaries at rate of £50 per annum, with board, residence, and washing.

PADDINGTON-GREEN CHILDREN'S HOSPITAL, London, W.—Surgeon to Out-patients. Also Pathologist and Registrar. Salary £50.

ROYAL FREE HOSPITAL, Gray's Inn-road, W.C.—Junior Obstetric Assistant (female) for six months. Board and lodging provided.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge-road, S.E.—Surgeon to Out-patients.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William-street, West Strand, W.C.—Clinical Assistants for six months.

ST. BARTHOLOMEW'S HOSPITAL.—Surgeon.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, W.—Lecturer on Physiology. Salary £400 per annum.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston-road, N.W.—Honorary Physician.

ST. THOMAS'S HOSPITAL.—Assistant Surgeon.

SHEFFIELD CHILDREN'S HOSPITAL.—Lady House Surgeon. Salary £70 per annum, with board, lodging, and washing.

TOWNSHIP OF TOXTETH PARK WORKHOUSE AND INFIRMARY, Liverpool.—Assistant Medical Officer. Salary £100 per annum, with board, washing, and apartments.

VICTORIA HOSPITAL FOR CHILDREN, Tite-street, Chelsea, S.W.—House Physician for six months. Honorarium of £25, with board and lodging.

WALLASEY DISPENSARY AND VICTORIA CENTRAL HOSPITAL, Liscard.—House Surgeon, unmarried. Salary £100, with apartments, board, and service.

WOLVERHAMPTON UNION WORKHOUSE, Heath Town, Wolverhampton.—Assistant Medical Officer (resident), unmarried. Salary £130 per annum, with apartments, rations, and washing.

WREXHAM INFIRMARY.—Resident House Surgeon. Salary £80 per annum, with board, lodging, and washing.

THE Chief Inspector of Factories, Home Office, S.W., gives notice of a vacancy as Certifying Surgeon under the Factory Act at Withnell in the county of Lancaster.

Births, Marriages, and Deaths.

BIRTHS.

DYSON.—On Nov. 5th, at 25, Aldersgate-street, E.C., the wife of Malcolm G. Dyson, F.R.C.S., of a son.

GAIRDNER.—At Cairo, on the 8th instant, the wife of the Rev. William Henry Temple Gairdner, B.A., a son.

STEPHENS.—On Nov. 7th, at Ebberslie, Hoylake, Cheshire, the wife of J. W. W. Stephens, M.D. Cantab., of a son.

WILLCOX.—On Oct. 10th, at Frogmore, St. Albans, the wife of W. H. Willcox, M.D. Lond., of a son.

MARRIAGE

ATKINSON—HICKS.—On Nov. 5th, at St. James's Church, Piccadilly, John Parkinson Atkinson, B.A., M.R.C.S., L.R.C.P., to Dorothea, youngest daughter of Charles Francis Hicks.

DEATHS.

ALEXANDER.—On Nov. 3rd, 1903, at Ashford, Middlesex, Ella Harriette, widow of the late Alexander Charles Archibald Alexander, M.B. Cantab., Surgeon-Major, Coldstream Guards, aged 43.

CRADOCK.—On Sunday, 1st November, at her residence, 52, Huskisson-street, Liverpool, Lucy Elizabeth Cradock, L.R.C.P.I.

LAWTON.—On Oct. 31st, at Poole, aged 52 years, Herbert Alfred Lawton, M.D. Durh., L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., M., and D.P.H., and late Medical Officer of Health.

NICHOLSON.—On Nov. 8th, at the Grange, Totteridge, Sir Charles Nicholson, Bart., M.D., D.C.L., LL.D. Cantab. and Edin., aged 95.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

MOTOR-CARS FOR MEDICAL MEN.

To the Editors of THE LANCET.

SIRS,—In the letters that are appearing on the subject of motor-cars we only hear the rosy side of the question and I hope you will allow me to mention a few points on the opposite side, and I can speak from sad personal experience, having had a car and having given it up in favour of the despised horse.

1. *Locality.*—Cars may be, and probably are, very convenient for long distances between stopping places and long journeys, but when it comes to towns and suburbs they are in my opinion and in the opinion of other medical men to my personal knowledge most unsuitable. Usually when making a visit the engine has to be stopped running, as it is impossible to tell how long one will be, and then started again, often giving rise to delay and trouble through some trifling fault, and it is not very conducive to one's good temper to be grinding at a handle in public thoroughfares at a machine which will not start, whilst if the groom or chauffeur starts it, or tries to, both master and man are wandering round endeavouring to find out the fault. With a cart or carriage one would be in the next house by the time the car is ready to go and both seated. If the engine is allowed to run whilst in a house there are the well-known and unavoidable smell and noise.

2. *Cleanliness.*—I will defy any motorists to keep clean and neat. Whilst running there is the dust; when either at home or on a journey some slight alteration is required—e.g., slipping belts, sparking plug fouling, short circuiting, or the hundred and one things that may require adjusting; then the quantity of dust, oil, and grease that finds its way on to one's clothes and hands, even through the best of gloves, is incredible and, until one tries to get it off, impossible to conceive and it is somewhat objectionable to go into a bedroom with the hands of an engine-room artificer.

3. *Repairs.*—Parts get broken or require adjustment as any motorist knows and these take time, and it is annoying being either stopped on one's round or prevented starting by some dirty engineering job.

4. *Cleaning and management of cars.*—It is generally conceded that to a certain extent one should look after the car oneself. This entails getting up an hour or so earlier in the morning, donning old clothes, and then changing and washing before the day's work can be started.

5. *Starting.*—If one could be certain of starting the car at once half the disadvantages would be done with, but when, as happened to me one day, I received an urgent call about a mile away to a new and lucrative patient and could not get the engine to start, though it had been all right a quarter of an hour earlier, and when after giving it up as a bad job and having made myself as presentable as possible I took a passing cab to find a rival practitioner in attendance you will understand that there are disadvantages in a motor-car.

6. *Physical and mental strain.*—I found myself, and others have told me that they experienced it also, the mental strain of driving a car amongst traffic, specially at any rate of speed, and the constant vibration makes the hands tremble and shake. Patients and their ailments are plenty to worry about without the extra anxiety of an engine-driver.

7. As to the kind of car that is suitable. Electric cars are clean and expensive, but quite unsuitable to any work except in large cities. Steam cars, fairly clean but intricate, have been known to be consumed by fire in the high road. Petrol cars are dirty, noisy, difficult to start, and fairly cheap.

I am, Sirs, yours faithfully,

Nov. 9th, 1903. EQUES.

To the Editors of THE LANCET.

SIRS,—If "Tramite Recta" really contemplates habitually driving a motor-car on gradients of one in three (!) I can assure him that his providing the necessary material for a coroner's inquest is merely a matter of time. He may do it 10, 20, or 100 times, but sooner or later his engine will stop going up hill, or his brake will fail, or his steering-gear will give, or his wheel will touch one bank, shooting his car across the road going down. After any of these occurrences the only other conveyance he will require will be one that is driven very slowly and will in all probability contain several wreaths of flowers bearing sympathetic inscriptions. I am, Sirs, yours faithfully,

Stratford-on-Avon, Nov. 6th, 1903. HARRY LUPTON.

A SERIOUS QUESTION.

To the Editors of THE LANCET.

SIRS,—Dr. Robert Jones in his paper read before the Society for the Study of Inebriety on July 15th, 1902, and published in THE LANCET of Oct. 25th, 1902, p. 1118, stated that "a still more striking fact is that the death-rate from alcohol during the last 15 years has increased by 42 per cent. in men and 100 per cent. in women." One naturally asks what are the reasons for this great increase amongst women. I beg to suggest that one factor may be that many women at the approach of every menstrual period make a practice, although they are most temperate at other times and many of them pose as "teetotalers," of drinking for two or three nights in succession from half a quartern to one quartern of hot gin each night before retiring to rest, and I have heard it stated that many of the medical attendants of these women are in the habit of recommending this practice. Whether this statement is true or not I do not know, but I believe it to be a fact that whether their medical men advise it or not this is the secret practice of many women and young girls even of 15 years old in the middle and lower classes. I suppose that the advantage of this drink is supposed to lie in the diuretic properties of the juniper spirit or oil with which it is flavoured, but could not some equally or more efficacious non-alcoholic drink be made known and generally prescribed?

I am, Sirs, yours faithfully,

NOV. 7th, 1903. A LAYMAN.

THE BRITISH MEDICAL BENEVOLENT FUND.

THE following is a second list of donations received in response to Sir William Broadbent's appeal:—

	£	s.	d.
Mr. W. H. Patmore Sheeby	10	10	0
Dr. C. A. Lee	5	5	0
Dr. F. Parsons	5	0	0
Mr. Wilson Eager	3	3	0
Dr. S. H. Habershon (annually)	2	2	0
Mr. E. B. Payne	1	1	0
Mr. J. King Lewis	1	1	0
Dr. E. B. Fiennell	1	0	0
Dr. J. H. Blight	1	0	0

The treasurer is grateful for the response already given to Sir William Broadbent's appeal. Unfortunately the amount of money received still falls far short of the requirements of the fund at the present time and unless the resources of the fund are largely increased the pressing claims which winter always brings will be very inadequately provided for. Further subscriptions and donations are urgently needed and may be sent to the treasurer, Dr. S. West, 15, Wimpole-street, London, W.

ADVERTISING 100 YEARS AGO.

THE recent pronouncement of the British Medical Association regarding the appearance of the names of medical men in lay newspapers, referred to in a leading article which appeared in THE LANCET of Nov. 7th, p. 1310, makes the following paragraph from the *Belfast News Letter* of 1810 of interest to-day:—

JOHN HOLMES, M.D.,

having completed his education in the various branches of his profession, takes the liberty of informing the public that he intends making Colerain the place of his residence, and as a medical practitioner respectfully solicits their notice.

From the ample opportunities which he has had of acquiring an accurate and extensive knowledge of the many important improvements which of late years have been introduced into medical practice by the most eminent of our modern practitioners, he trusts he shall not be accused of presumption by recommending himself as duly qualified to discharge the serious duties of so important a trust with fidelity and success.

With much deference Dr. Holmes would intimate that he has paid more than ordinary attention to those affections which are known by the general epithet of fevers and that he still intends to cultivate that most important branch of his profession with the utmost care and industry. He also thinks proper to state that in order to render his knowledge as complete as possible he has dedicated no inconsiderable share of his time and attention to those studies which more especially belong to the province of the surgeon. Colerain, March 16th, 1810.

WANTED—A HOME.

To the Editors of THE LANCET.

SIRS,—I shall be glad if any of your readers can tell me of a home suitable for a girl, aged 15 years, who is suffering from spastic paraplegia. The child is helpless and of feeble intellectual development but is not imbecile. Her parents are in very humble circumstances but a small payment might be possible through charitable friends. Efforts to find a home have thus far been ineffectual.

I am, Sirs, yours faithfully,

1, Ethelbert-crescent, Margate, Nov. 8th, 1903. F. E. NICHOL.

MAIZE OR INDIAN CORN AS A FOOD.

To the Editors of THE LANCET.

SIRS,—For some time I have at varying intervals tried maize flour or Indian corn as an article of dietary and I believe if only people could be prevailed upon to try it it would be found a valuable addition to our list of cereal foods. Unfortunately, in England and Scotland Indian corn is associated with the feeding of poultry and when a prejudice has once been established it is difficult to uproot. People, and more especially the artisan classes, think this particular cereal is food only fit for hens. Nothing could be further from the truth. Maize in the form of finely milled flour is a pleasant and nourishing food. It is largely employed in America, South Africa, Germany, and now also in Ireland. Here let me emphasise the point that it is the fine meal I mean, for unless this is specially mentioned the dealer will supply the coarse-ground meal uncleaned and unfit for human beings. Indeed, so little is the fine meal known in England that I have been unable to obtain it in a large town like Leeds. The supplies I have hitherto had have come from Ireland. Comparing the cost with that of flour I find they are about the same, but if maize came into more general use it should be much cheaper than wheaten flour. Comparing wheat, maize, and oats as to their nutritive values one finds that in albuminoids the three agree closely. In starch maize is nearly

as rich as is wheat and in this agent it is richer than oatmeal. In fat maize is as rich as is oatmeal and this is an important point in the feeding of the poor. Wheaten flour, as is well known, is poor in fat. The composition of the fat of maize is similar in quality to the fat of other cereals, consisting of glycerine and oleic, stearic, and palmitic acids, but it differs in the proportions. Maize fat contains a relatively large quantity of glycerine—namely, 6·46 against 2·8 for oatmeal.

Maize, in my opinion, would find its chief use in England as a porridge. In the form of porridge it has a pleasant sweetish taste and is liked by children. Its richness in fat can be proved by placing a spoonful of the porridge in water when the minute droplets are seen floating on the surface. Maize porridge is in taste very like a semolina pudding. The flour can also be made into cakes, and these are a change from wheaten bread, although one soon tires of this bread by itself. However, it is a variety and the more variety we can get in our food the better it is. At the present day we are getting too much tied down to the use of wheaten bread. I have no need to mention other ways of cooking Indian corn. These suggest themselves to every housewife. Let me say that in the shape of fancy foods people often pay fabulous prices for Indian corn.

I am, Sir, yours faithfully,

Leeds, Nov. 7th, 1903. J. GORDON SHARP, .D. Edin.

THE WILLIAM CADGE MEMORIAL.

To the Editors of THE LANCET.

SIRS,—We shall be obliged if you will insert the following final list of subscribers to the above memorial.

We are, Sirs, yours faithfully,

W. H. DAY,
MICHAEL BEVERLEY.

Norwich, Nov. 9th, 1903.

LONDON:—
Sir Henry Thompson, Bart.
Sir Joseph Dalton Hooker, G.C.S.I., C.B.
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Mr. S. M. Hopson, Dereham.
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Dr. C. B. Plowright, Lynn.
Mr. E. T. Prior, Loddon.
Mr. G. E. Deacon, Hethersett.

THE USE OF PETROLEUM.

To the Editors of THE LANCET.

SIRS,—I shall be glad if any of your readers can inform me as to the nutritive value of petroleum administered internally and its mode of action. Is it simply a food, to be absorbed and utilised as such, or is its action purely antiseptic to pave the way and to improve the tone for the better digestion of normal food? Also, what is the relative nutritive value of the animal, vegetable, and mineral oils?

I am, Sirs, yours faithfully,

Nov. 9th 1903. C. W. S.

THE CIGARETTE CRAZE.

To the Editors of THE LANCET.

SIRS,—In course of several thousands of inductions of anæsthesia I have found that in a certain percentage of cases—young men with no appreciable lung trouble or previous history of such—the inspiration of ether at once causes intense irritation, excess of secretion, and cyanosis. If the ether be pushed the patient after many long spasms is anæsthetised but remains a bad colour, and on auscultation "the air-way" down to the small capillaries seems partially filled with secretion and the patient "takes the anæsthetic badly." A similar state of affairs is found when the ether tension rises if the gas-ether method of induction be used. On investigating these cases I found that all of them had been heavy cigarette smokers and inhaled the smoke also.

Of late I have administered chloroform to all patients who confessed to the excessive use of the cigarette and have always found the irritation less, although on auscultating the fully anæsthetised patient one frequently finds moist crepitations audible over the bases of the lungs and occasionally in the axillæ and the front of the chest. These crepitations were not present before induction and are not found in normal cases unless there has been some previous lung trouble or irritation, so I think it is fair to assume that the respiratory tract has not (to put it mildly) been improved by the inhalation of the cigarette smoke.

I am, Sirs, yours faithfully,

J. REGINALD BENTLEY, M.B., B.C. Cantab., &c.,
late House Physician, &c., Royal Berks Hospital,

Barrow, Hull, Nov. 5th, 1903. Reading.

QUACKERY IN HIGH PLACES.

A CORRESPONDENT sends us a copy of an advertisement of a liniment which appears in one of the best known London papers. The advertisement states that the wife of the Commander-in-Chief has written to the proprietors of the nostrum in question to say that she finds it most excellent and that she incloses 2*s.* 9*d.* The Countess Roberts, through the manifold excellencies of her husband, has attained to a high place in society. We feel that she ought not to be entrapped by such a statement as "——liniment cures rheumatism in five minutes." It is the credulity of people in conspicuous positions which leads the public to support so many charlatans. The army will follow Lord Roberts anywhere and it is not unlikely that the wives of the army may follow his wife. The Countess Roberts is rich and the 2*s.* 9*d.* is nothing to her, but to the wife of a soldier with a few pence a day 2*s.* 9*d.* is a large sum. Mrs. Tommy Atkins may be persuaded to imitate the example of the Countess Roberts and thus to pay 2*s.* 9*d.* for an application the equivalent of which could have been supplied at much less cost by a medical man or by a druggist on a medical man's prescription.

SPHYGMOGRAPHS.

To the Editors of THE LANCET.

SIRS,—I should esteem it a great favour if one of your readers would inform me what sphygmograph, in his opinion, would be preferable for a country practitioner as I am rather doubtful what form to purchase.

I am, Sirs, yours faithfully,

Nov. 10th, 1903. A COUNTRY PRACTITIONER.

Y. Z.—Our correspondent has forgotten to inclose his name and address.

Inquirer does not make it clear whether he is a medical man.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (16th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.).

TUESDAY (17th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.).

WEDNESDAY (18th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.) Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M).

THURSDAY (19th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat, (9.30 A.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

FRIDAY (20th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), City Orthopædic (2.30 P.M.), Soho-square (2 P.M.).

SATURDAY (21st).—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY (17th).—PATHOLOGICAL SOCIETY OF LONDON (King's College).—8.30 P.M. Mr. G. L. Cheatle: The Behaviour of Cancer in Nerve or Trophic Areas.—Prof. R. T. Hewlett: The Agglutination Reaction in Tropical and Asylum Dysentery. And other Communications.

CHELSEA CLINICAL SOCIETY (Chelsea Dispensary, Manor-street, King's-road, S.W.).—8.30 P.M. Cases:—Dr. C. C. Gibbes: Cases of Cardiac Disease. Communications:—Dr. G. E. Pritchard: The Inheritance of acquired Characteristics.—Dr. T. B. Hyslop: The Examination of a Person alleged to be Insane.

WEDNESDAY (18th).—ROYAL MICROSCOPICAL SOCIETY (20, Hanover-square, W.).—8 P.M. Papers:—Prof. J. D. Everett: Microscopic Resolution.—Mr. W. Wesché: The Mouth Parts in the Nemocera and their Relation to the other Families in Diptera.

ROYAL METEOROLOGICAL SOCIETY (Institute of Civil Engineers, Great George-street, Westminster, S.W.).—7.30 P.M. Papers:—(1) Dr. H. R. Mill and (2) Mr. R. G. K. Lempfert: The Great Dustfall of Feb. 21st and 22nd, 1903, and its Origin.

SOCIETY OF ARTS (John-street, Adelphi, W.C.).—8 P.M. Sir W. Abney: Opening Address of the 150th Session.

THURSDAY (19th).—HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Titchborne-street, Edgware road, W.).—8.30 P.M. Dr. D. B. Lees: The Treatment of some Acute Visceral Inflammations. (Third Harveian Lecture.)

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM (11, Chandos-street, Cavendish-square, W.).—8 P.M. Cases will be shown by Mr. G. W. Roll, Mr. G. H. Pooley, and Mr. R. W. Doyne. 8.30 P.M. Papers:—Mr. E Nettleship: Case of Indirect Gunshot Injury of the Eye.—Major Maynard and Dr. L. Rogers: Pulsating Exophthalmos due to Dilation and Dropsy of the Optic Nerve accompanying Internal Hydrocephalus.—Dr. F. Fergus: (1) An Easy Operation for Ectropion; (2) Average Visual Acuteness.—Mr. N. B. Harman: The Judgment of the Size and Distance of Objects.—Dr. G. Byers: On the Cure of Catarrhal Inflammations of the Lacrymal Apparatus with Preservation of the Normal Anatomical Conditions.

FRIDAY (20th).—SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN (11, Chandos street, W.).—5.30 P.M. Cases and Specimens will be shown by Dr. J. Taylor, Mr. F. Jaffrey, Dr. G. A. Sutherland, Mr. H. S. Collier, Dr. G. Carpenter, Mr. D. Drew, and Mr. J. W. T. Walker. Papers:—Mr A. Carless: Some Cases of Lymphangiomata.—Mr. T. C. Dent: A Case of Hypertrophic Stenosis of the Pylorus; Pyloroplasty.—Dr. E Cautley: An Unusual Case of Hypertrophic Stenosis of the Pylorus.

EPIDEMIOLOGICAL SOCIETY (11, Chandos street, Cavendish-square, W.).—8 P.M. Council Meeting. 8.30 P.M. Paper: Prof. W. J. Simpson: Some Remarks on the Epidemiology of Plague.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (16th).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Mansell Moullin: Malignant Disease of the Uterus.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. G Little: Clinique. (Skin.) 5.15 P.M. Dr. A. McFadyen: The Present Position of Experimental Enquiry in Relation to Cancer

TUESDAY (17th).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Beddard: Practical Medicine. (Third Lecture.)

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. A. P. Luff: Clinique. (Medical.) 5.15 P.M. Dr. R. Jones: How to Treat a Case of Insanity.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Dr. Batten: Diseases of the Cerebellum.

GLASGOW OPHTHALMIC INSTITUTION (126, West Regent-street).—5 P.M. Demonstration of Ophthalmoscopic Cases, Stereoscopic and other Photographs, Pathological Specimens and Microscopic Slides. Treatment of Traumatic Ulcer of the Cornea. (Post-Graduate Course.)

WEDNESDAY (18th).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Robinson: Pelvic Pain.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. J. Cantlie: Clinique. (Surgical.) 5.15 P.M. Mr. J. Clarke: On the Operative Treatment of Piles and Kindred Affections.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. A. Latham: Thoracic Aneurysm.

THURSDAY (19th).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Edwards: Urinary Cases.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.) 5.15 P.M. Mr. H. L. Barnard: Intestinal Obstruction.

SAMARITAN FREE HOSPITAL FOR WOMEN (Marylebone-road, N.W.).—3 P.M. Mr. Malcolm: Uterine Tumours.

CHARING CROSS HOSPITAL.—4 P.M. Dr. Willcocks: Demonstration of Medical Cases. (Post-Graduate Course.)

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Dr. Garrod: Diabetes in Children.

NORTH-EAST LONDON POST-GRADUATE COLLEGE (Tottenham Hospital, N.).—4.30 P.M. Mr. W. Edmunds: Surgical Diseases of Children. (Second Lecture.)

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (7, Fitzroy-square, W.).—5 P.M. Dr. F. P. Weber: Arrested Pulmonary Tuberculosis, especially in regard to Treatment. (Post-Graduate Course.)

FRIDAY (20th).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Reece: Slaughter-houses.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. St Clair Thompson: Clinique. (Throat.) 5.15 P.M. Dr. L. Williams: Some Points in Climatic and Balneary Therapeutics.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Mr. M. Gunn: Optic Neuritis.

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IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Nov. 12th, 1903.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
Nov. 6	30·55	E.	...	68	54	44	47	49	Overcast
" 7	30·50	E.	...	62	52	42	44	45	Foggy
" 8	30·32	S.	...	54	52	45	44	47	Cloudy
" 9	29·99	S.W.	0·01	65	57	46	51	52	Raining
" 10	30·13	S.W.	0·11	78	57	44	45	47	Overcast
" 11	30·28	N.W.	...	56	56	47	52	56	Foggy
" 12	30·25	S.W.	...	58	53	48	48	50	Overcast

During the week marked copies of the following newspapers have been received: *Western Gazette, Aberdeen Daily Journal, Westminster Gazette, West Cumberland Times, Carlisle Journal, Dublin Evening Mail, Colliery Guardian, Daily News, Aberdeen Free Press (Weekly), Surrey Advertiser, Bristol Mercury, Dublin Express, Morning Post, Sanitary Record, Local Government Chronicle, Mining Journal, Hertfordshire Mercury, Burton Chronicle, Army and Navy Gazette, The Medical Examiner, &c.*

Communications, Letters, &c., have been received from—

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F.—Captain Fremantle Hythe; Messrs. Fairchild Bros. and Foster, Lond.; Mr. Gustav Fischer, Jena; F. T. H.; Mr. W. G. Faulkner, Ilford.

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J.—Mr. Edgar Judson, Lond.; Dr. A. H. James, Blaenavon.

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N.—Mr. John Northmore, Plymouth; National Association for the Prevention of Consumption, &c., Lond., Secretary of; Mr. J. C. Needes, Lond.; Mr. H. Needes, Lond.

O.—Mr. Theodore Ogg, Fyvie; Obstetrical Society of London, Hon. Secretary of.

P.—Mr. F. M. Perkin, Lond.; Mr. Y. J. Pentland, Edinburgh; Dr. A. Pryce, St. Asaph; Dr. T. W. Parry, Lond.; Messrs. Peacock and Hadley, Lond.

R.—Dr. Clive Riviere, Lond.; Mr. Samuel Rideal, Lond.; Royal Waterloo Hospital for Children and Women, Lond.; Royal College of Physicians of London, Bedell of; Royal Medical Society, Edinburgh, Transactions of, Editor of; Dr. T. F. Ricketts, Dartford; Messrs. Reynolds and Branson, Leeds.

S.—Dr. W. C. Spooner, Blandford; Messrs. Smith and Gill, Sheffield; Dr. Septimus Sunderland, Lond.; Dr. D. J. Sherrard, Hailsham; Messrs. E. S. Shultes and Co., Lond.; Dr. James E. H. Sawyer, Birmingham; Seltzogene Patent Charges Co., St. Helen's, Secretary of; Messrs. Slade and Church, Croydon; Dr. F. W. Saunders, Newbury; Society of Anæsthetists, Lond., Secretary of; Dr. G. A. Sutherland, Lond.; Mr. R. Sears, Enniscorthy; Scholastic, Clerical, &c., Association, Lond.; St. Pancras and Northern Dispensary, Lond., Secretary of; Mr. H. Sturmey, Coventry; Dr. L. E. Stevenson, Penrith.

T.—Captain E. F. Gordon Tucker, I.M.S., Bombay; T. C. G., Mr. Douglas Thomson, Highelere; Messrs. A. H. Turner and Co., Woking.

W.—Dr. F. H. Walters, Farnham; Mr. J. B. Whittles, Birmingham; Wrexham Infirmary, Secretary of; W. N.; W. B. R.; Messrs. F. Williams and Co., Lond.; Mr. W. Roger Williams, Clifton; West London Hospital Post-Graduate College, Dean of; Wolseley Tool and Motor Car Co., Birmingham.

Y.—Dr. E. E. Young, Lond.

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